

Joint Pub 4-0



Doctrine for Logistic Support of Joint Operations



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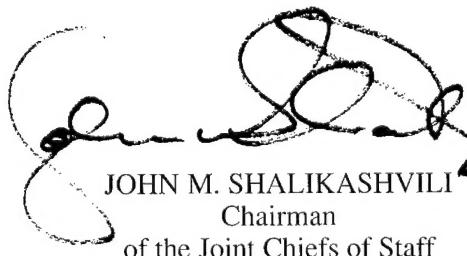
27 January 1995



To meet our Nation's global responsibilities, our ability to move and sustain combat forces virtually anywhere in the world must be maintained. This requires efficiently integrating the unique logistic capabilities of all our Services. Joint doctrine is the underpinning that makes this happen and optimizes the use of limited resources, enhances interoperability, and fosters cooperation.

Joint Pub 4-0 is the keystone document of the logistic support of joint operations series. It discusses principles, planning considerations, and responsibilities for logistic operations. The principles provided herein serve as a guide to the combatant commander and planners when developing a theater logistic concept.

Logistics is the foundation of our combat power. We must, therefore, continue to develop and refine joint doctrine that promotes the most efficient, effective use of all available assets. Adherence to that doctrine is the key to our success.



JOHN M. SHALIKASHVILI
Chairman
of the Joint Chiefs of Staff

PREFACE

1. Scope

Joint Pub 4-0 is the keystone document of the logistic support of joint operations series. It provides fundamental principles and doctrine for logistic support of joint and multinational operations.

2. Purpose

Joint Pub 4-0 is the keystone document of the logistic support of joint operations series. This publication sets forth doctrine to govern the joint activities and performance of the Armed Forces of the United States in joint operations as well as the doctrinal basis for US military involvement in multinational and interagency operations. It provides military guidance for the exercise of authority by combatant commanders and other joint force commanders and prescribes doctrine for joint operations and training. It provides military guidance for use by the Armed Forces in preparing their appropriate plans. It is not the intent of this publication to restrict the authority of the joint force commander (JFC) from organizing the force and executing the mission in a manner the JFC deems most appropriate to ensure unity of effort in the accomplishment of the overall mission.

3. Application

a. Doctrine and guidance established in this publication apply to the commanders of combatant commands, subunified commands, joint task forces, and subordinate components of these commands. These principles and guidance also may apply when significant forces of one Service are attached to forces of another Service or when significant forces of one Service support forces of another Service.

b. The guidance in this publication is authoritative; as such, this doctrine will be followed except when, in the judgment of the commander, exceptional circumstances dictate otherwise. If conflicts arise between the contents of this publication and the contents of Service publications, this publication will take precedence for the activities of joint forces unless the Chairman of the Joint Chiefs of Staff, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance. Commanders of forces operating as part of a multinational (alliance or coalition) military command should follow multinational doctrine and procedures ratified by the United States. For doctrine and procedures not ratified by the United States, commanders should evaluate and follow the multinational command's doctrine and procedures, where applicable.

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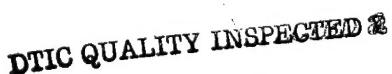
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EXECUTIVE SUMMARY

COMMANDER'S OVERVIEW

- **Covers Authorities and Responsibilities for Logistic Operations**
- **Provides Logistic Principles and Considerations**
- **Discusses Logistic Planning**
- **Gives Guidance on Logistics at the Theater Level**

General Logistics Overview

Logistics is the foundation of combat power.

Logistics is the bridge connecting a nation's economy to a nation's warfighting forces. It is the process of planning and executing the **movement and sustainment of operating forces** in the execution of a military strategy and operations. The **art of logistics** is how to integrate the strategic, operational, and tactical sustainment efforts within the theater, while scheduling the mobilization and deployment of units, personnel, and supplies in support of the employment concept of a geographic combatant commander.

Logistic functions include:

Supply systems

Maintenance

Transportation

General engineering

Health services

Supply systems acquire, manage, receive, store, and issue the materiel required by the operating forces. **Maintenance** includes actions taken to keep materiel in a serviceable condition or to upgrade its capability. **Transportation** is the movement of units, personnel, equipment, and supplies from the point of origin to the final destination. **General engineering** provides the construction, damage repair, and operation and maintenance of facilities or logistic enhancements. **Health services** include evacuation, hospitalization, medical logistics, medical laboratory services, blood management, vector control, preventive medicine services, veterinary services, and dental services. For each of the above functional areas, the combatant commander should consider the four elements of the logistics process: **acquisition, distribution, sustainment, and disposition.**

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Responsibilities

Combatant commanders exercise directive authority for logistics.

The exercise of **directive authority for logistics** by a combatant commander includes the authority to issue to subordinate commanders directives, including peacetime measures, necessary to ensure the effective execution of approved operation plans, the effectiveness and economy of operation, and the prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commands.



Air refueling adds flexibility and responsiveness to the strategic airlift system.

Services and Service components implement.

Implementation and execution of logistic functions remain the responsibility of the Services and the Service component commanders.

Services provide own logistic support.

Each Service is responsible for the logistic support of its **own forces**, except when logistic support is otherwise provided for by agreements with national agencies or allies, or by assignments to common, joint, or cross-servicing.

Combatant commanders establish priorities.

The combatant commander will **review requirements** of the Service component commands and **establish priorities** through the deliberate planning process to use supplies, facilities, mobility assets, and personnel effectively.

Subordinate joint forces will normally follow single-Service logistic support channels.

Logistic responsibilities for subordinate forces to the combatant command will follow **single-Service command channels**, except when specifically directed otherwise either by the authority assigning those subordinate forces to the combatant command or by the Secretary of Defense; when

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common, joint, or cross-servicing agreements and procedures provide other responsibilities; or the geographic combatant commander may give the commander of a subordinate joint force directive authority for a common support capability within that subordinate commander's joint operations area.

Supply

<i>Combatant commanders coordinate supply support between Service components.</i>	Combatant commanders are responsible for allocating critical resources, coordinating supply support between the Service components, establishing supply buildup rates , and stating theater stockage levels .
<i>Commanders of Service component commands are responsible for logistic support of their forces.</i>	Subject to combatant commanders' responsibility and authority, commanders of the Service component commands are responsible for logistic support of their forces and direct communication with appropriate headquarters on all supply matters.
<i>Allied forces are normally self-sufficient.</i>	Allied nations design their logistic systems to facilitate self sufficiency within their fiscal capabilities. Although the sustainment of its forces is each nation's own responsibility, varying degrees of mutual logistic support among nations can be expected.
<i>The geographic combatant commander is responsible for supplies for civilians.</i>	The geographic combatant commander is responsible for provision of supplies to civilians in occupied areas in accordance with current directives, obligations, and treaties the United States recognizes.
<i>The geographic combatant commander is responsible for a distribution network, maintenance and salvage, facilities engineering and base development, coordinating health services, and field services.</i>	The geographic combatant commander is responsible for maintaining an effective distribution network that is consistent with the Services' intertheater policy and procedures; they are responsible for coordinating maintenance and salvage ; establishing bases ; coordinating real estate requirements ; and planning, programming and constructing roads, bridges, and facilities . The Services are normally responsible for facility acquisition funding and support. Geographic combatant commanders are responsible for coordinating and integrating health service support and the search, recovery, identification, care, and evacuation or disposition of deceased personnel within their theaters.

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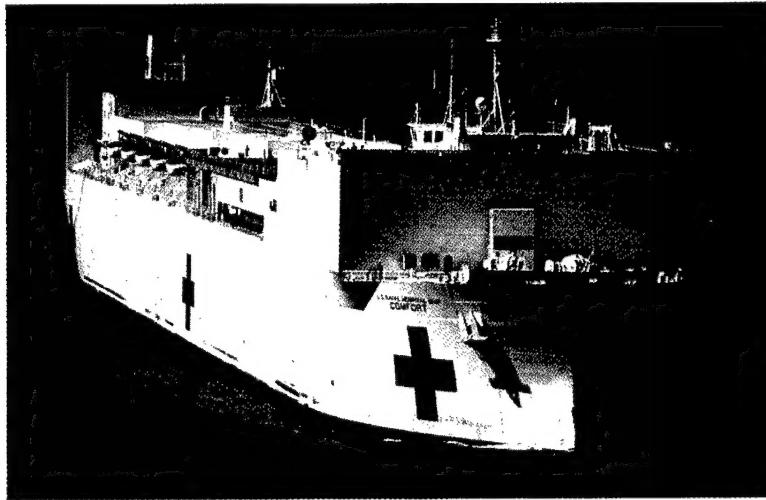
The Commander in Chief, US Transportation Command provides strategic air, land, and sea transportation.

The Commander in Chief, US Transportation Command (USCINCTRANS) has the mission to provide **strategic air, land, and sea transportation** to deploy, employ, and sustain military forces to meet national security objectives throughout the range of military operations. Combatant commanders coordinate their movement requirements and required delivery dates with USCINCTRANS.

Joint Logistic Planning

The combatant commanders' operation plans should have logistic implications coordinated at all levels.

Proper logistic planning will reduce the need for emergency measures and improvisations, which are usually expensive and often have an adverse effect on subordinate and adjacent commands. Logistic planners must avoid focusing solely on the deployment problem at the expense of sustaining the employment concept of the campaign.



Hospital ships provide responsive support to deployed troops worldwide.

Logistic planning should be done at the strategic, operational, and tactical levels.

The strategic logistic concept will focus on the ability to generate and move forces and materiel into the theater. Tactical planning is done primarily by the Service components.

Special logistic planning considerations include demands of an expanding force, critical items, bottlenecks, movement control, and civilian supply sources.

Planners must identify **critical or key issues** unique to a specific operation plan they must support. These issues include the increased demand associated with an **expanding force**; **critical supply items**; constricting **bottlenecks**; control of **all means of transportation** (including that provided by allies and host nations); and the **sourcing of supplies and services** from coalition sources.

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Joint Theater Logistics

The influence of the combatant commander is essential in bridging any operations-logistics gap.

Combatant commanders must ensure that their campaign plans fully **integrate operational and logistic capabilities**. The influence of the combatant commander is essential in bridging any operations-logistics gap.

The logistic system integrates intertheater and intratheater transportation.

Key elements of the logistic system include **lines of communications, theater transportation network, specialized units, and host-nation support**. Considerations in developing a logistic system include geography, transportation, logistic capability, logistic enhancements, logistic infrastructure protection, echelon of support, assignment of responsibility, and availability of wartime host-nation support.

The theater strategic logistic concept is derived from the estimate of logistic supportability of one or more of the courses of action.

The theater logistic concept should derive from the **estimate of logistic supportability** of one or more courses of action. It is the envisioned manner in which the capabilities and resources of the combatant commanders components will be employed to provide supply, maintenance, transportation, and engineering services.

CONCLUSION

Logistics is the bridge connecting a nation's economy to a nation's warfighting forces. It is the foundation of combat power. Combatant commanders exercise directive authority for logistics. This includes the authority to issue to subordinate commanders directives, including peacetime measures, necessary to ensure the effective execution of approved operation plans, the effectiveness and economy of operation, and the prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commands. The combatant commanders' operation plans should have logistic implications coordinated at all levels.

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CHAPTER I

AUTHORITIES AND RESPONSIBILITIES FOR LOGISTIC OPERATIONS

"Strategy is to war what the plot is to the play; Tactics is represented by the role of the players; Logistics furnishes the stage management, accessories, and maintenance. The audience, thrilled by the action of the play and the art of the performers, overlooks all of the cleverly hidden details of stage management."

LtCol George C. Thorpe: Pure Logistics, 1917

1. General

a. **Logistics.** Logistics provides the foundation of our combat power. It can be described as **the bridge connecting a nation's economy to a nation's warfighting forces**. Logistics is the process of planning and executing the movement and sustainment of operating forces in the execution of a military strategy and operations. Areas of logistic responsibilities are shown in Figure I-1. The art of logistics is how to **integrate the strategic, operational, and tactical sustainment efforts** within the theater, while scheduling the mobilization and deployment of units, personnel, and supplies in support of the employment concept of a geographic combatant commander. The relative **combat power** military forces can bring to bear against an enemy is **constrained by a nation's capability to deliver forces and materiel** to the required points of application across the range of military operations. Commanders may have more combat forces than available logistic resources to move and sustain desired operations. A nation's capability to deliver logistic resources has historically been a **major limiting factor** in military operations. This may be especially true in future joint operations, when demands for military resources become highly competitive.



Figure I-1. Areas of Logistic Responsibilities

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b. Levels of Logistic Support. Joint doctrine states that there are **three levels of war—strategic, operational, and tactical**. They apply in war and in operations other than war. Logistic support within these levels is demonstrated in the way the Joint Staff, Services, and warfighting commanders handle logistics. The **Joint Staff** and **Services** concentrate on **strategic** logistic matters. The **supported and supporting commanders' logistic staffs** manage both the **strategic** and **operational** logistic issues affecting missions assigned to the combatant commanders (CINCs) in the Joint Strategic Capabilities Plan by the National Command Authorities (NCA) and other such areas as directed by the combatant commander. The **Services** and the **subordinate commanders** down to their battlefield logisticians at the unit and ship level, deal with **operational** and

tactical logistic responsibilities, including developing procedures, doctrine, and training for supplying personnel with all necessary materiel to do their jobs. **All levels are interrelated**, with constraints at any level limiting options of decisionmakers. Within their areas of responsibility (AORs), geographic combatant commanders may establish a theater of war and, if needed, subordinate theaters of operations (see Joint Pub 3-0, "Doctrine for Joint Operations"). The logistic concept should support theater activity by properly organizing support from the continental United States (CONUS) base to the combat zone. Figure I-2 shows a broad framework for this organization and the scope of logistic support needed to support a theater. **All levels of logistics involve combat service support** and affect the **sustainability** of forces in the combat zone.

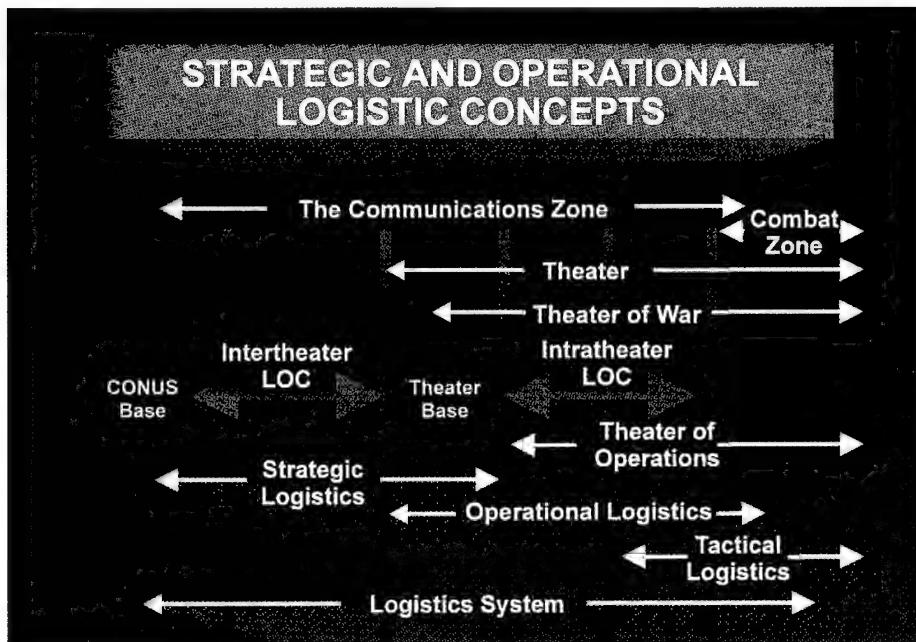


Figure I-2. Strategic and Operational Logistic Concepts

Authorities and Responsibilities for Logistic Operations

c. **Logistic Functions.** Logistic support requirements involve **six broad functional areas**: supply systems, maintenance, transportation, general engineering, health services, and other services, and are illustrated in Figure I-3.

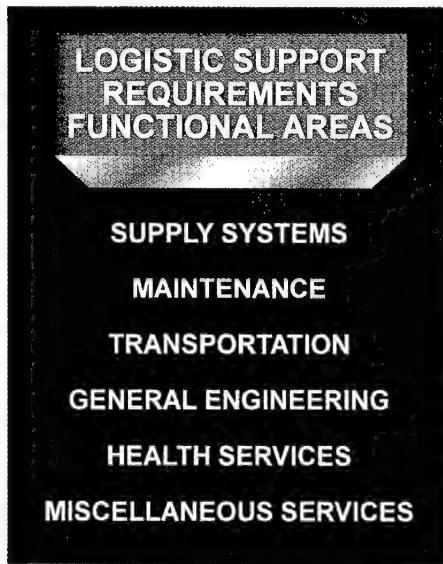


Figure I-3. Logistic Support Requirements Functional Areas

- **Supply systems** acquire, manage, receive, store, and issue the materiel required by the operating forces to equip and sustain the force from deployment through combat operations and their redeployment.
- **Maintenance** includes actions taken to keep materiel in a serviceable condition, to return it to service, or to update and upgrade its capability.
- **Transportation** is the movement of units, personnel, equipment, and supplies from the point of origin to the final destination. Additional guidance is in the Joint Pub 4-01 series of publications.
- **General engineering** provides the construction, damage repair, and operation and maintenance of facilities or logistic enhancements required by the combatant commander to provide shelter, warehousing, hospitals, water and sewage treatment, and water and fuel storage distribution in order to enhance provision of sustainment and services. Additional guidance is found in Joint Pub 4-04, "Joint Doctrine for Civil Engineering Support."
- **Health services** include evacuation, hospitalization, medical logistics, medical laboratory services, blood management, vector control, preventive medicine services, veterinary services, dental services, and the required command, control, and communications. Additional guidance is found in the Joint Pub 4-02 series of publications.
- **Other services** are associated with nonmateriel support activities and consist of various functions and tasks provided by service troops and the logistic community that are essential to the technical management and support of a force (i.e., aerial delivery, laundry, clothing exchange and bath, and graves registration.) Additional guidance is found in Joint Pub 4-06, "Joint Doctrine and JTTP for Mortuary Affairs in Joint Operations."

d. **Joint Support Responsibilities and Requirements.** To avoid shortfalls or increased risk in operation plans (OPLANs), logistics must be balanced between the combatant commander's needs and logistic resource availability. **Logistics is also a function of command.** To have control over the strategic, operational, and tactical levels of war, one must also have control over logistics. For

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a given area and for a given mission, a single **command authority** should be responsible for logistics. Combatant commanders exercise **combatant**

resources, and **combat power** but does not involve the transfer of forces or units. Support is characterized as mutual support, general support, direct support,



Airlift is a cornerstone of global force projection.

command (command authority) (COCOM) over assigned forces. **COCOM includes directive authority for logistics**, giving the combatant commander the unique ability to shift logistic resources within the theater. COCOM cannot be delegated. Normally, this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)," gives a full explanation of COCOM and the other command relationships of operational control, tactical control, and support. (Note: A CINC's authority is generally confined to the theater, while logistic support beyond the theater is usually a Service's responsibility. This authority underscores the need for accurate, and well coordinated, prior logistic planning between CINCs, Services, supporting agencies, and allies.) **Support**, which often involves logistics, is the action of a force that **aids, protects, complements, or sustains** another force and may involve the provision of services,

and close support. Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)," also provides descriptions of the concepts of coordinating authority, administrative control, and direct liaison authorized.

"International logistic coordination must always involve some invasion of the economic rights, independence, and sovereignty of each nation of the alliance."

**Rear Admiral Henry E. Eccles:
Logistics in the National Defense,
1959**

e. Multinational Logistic Support Responsibilities and Requirements. For coalition and combined commands, formal arrangements for command and control (C2) may not be feasible, but joint command relationships and procedures give US combatant commanders an entry position on which to base multinational relationships. Combatant commanders cannot enter into multinational relationships that are contrary to US policy without NCA direction. Allied and

Authorities and Responsibilities for Logistic Operations

coalition nations design their logistic systems to facilitate self sufficiency within their fiscal capabilities. **Although the sustainment of its forces is each nation's own responsibility, varying degrees of mutual logistic support among nations can be expected.** The exchange of logistic support among members of alliances or coalitions can result in significant **economies of effort.** However, in the absence of appropriate international agreements, no authority exists for the geographic combatant commanders to provide for or accept logistic support from allies or coalition partners. Under these circumstances, multinational commanders should attain **as much control of logistics as possible through tact, diplomacy, knowledge of allied forces' doctrine, and generally good personal relations** with allied and coalition subordinate commanders and political leaders. Requirements for multinational forces supported by, or under the control of, a geographic combatant commander should be screened by the commanders of the appropriate Service component commands and reported separately to the geographic combatant commander's J-4. The combatant commander is responsible for **establishing the necessary reports and forwarding the requirements to the**

Chairman of the Joint Chiefs of Staff for obtaining NCA approval for providing support to multinational forces. The geographic combatant commander will **ensure that assistance is rendered** to multinational forces in accordance with assigned responsibilities and as directed by the NCA.

f. Elements of the Logistic Process. For each of the functional areas listed in paragraph 1c above, the geographic combatant commander should consider the four elements of the logistic process: **acquisition, distribution, sustainment, and disposition.** At the **theater strategic level**, specific considerations include: (1) **logistic resources** necessary to generate combat forces and sustain their operations, (2) the **procurement process** to ensure the availability of logistic resources in a timely manner, (3) the **process of allocating** available logistic resources among subordinate commands, and (4) the **distribution system** necessary to achieve the maximum combat effectiveness. Theater strategic considerations are shown in Figure I-4. At the **theater operational level**, specific considerations include **identification of operational requirements** and **establishment of priorities** for the employment of the

SPECIFIC CONSIDERATIONS AT THE THEATER STRATEGIC LEVEL

- **Logistic resources necessary to generate combat forces and sustain their operations.**
- **The procurement process to ensure the availability of logistic resources in a timely manner.**
- **The process of allocating available logistic resources among subordinate commands.**
- **The distribution system necessary to achieve maximum combat effectiveness.**

Figure I-4. Specific Considerations at the Theater Strategic Level

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resources provided. Geographic combatant commanders should understand that these functions will vary in definition and application, and plan accordingly. Efforts should be made to standardize these functions without inhibiting operations. **Logistic functions should use existing policies and procedures of the Service components whenever possible.** If it is not possible to use existing policies and procedures of the Service components, the geographic combatant commanders must identify and resolve differences with Service commanders early in the planning process to ascertain the degree of uninterrupted logistic support in the theater. These procedures apply across the range of military operations. Ideally, prior deliberate planning and testing of these modifications in joint exercises should be conducted to ensure adequate logistic support for the expected joint operations.

2. Responsibilities

"I don't know what the hell this 'logistics' is that Marshall is always talking about, but I want some of it."

Fleet Admiral E.J. King: To a staff officer, 1942

a. Authority and Control

- **Commanders of combatant commands may exercise directive authority for logistics (or delegate directive authority for a common support capability).** The exercise of directive authority for logistics by a combatant commander includes the authority to issue to subordinate commanders directives, including peacetime measures, **necessary to ensure the following:**

- Effective execution of approved OPLANs.
- Effectiveness and economy of operation.
- Prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commands.
- **This authorization of directive authority is not intended to:**
 - Discontinue Service responsibility for logistic support.
 - Discourage coordination by consultation and agreement.
 - Disrupt effective procedures, efficient use of facilities, or organization.
- Unless otherwise directed by the Secretary of Defense, the **Military Departments and Services** will continue to have responsibility for the **logistic and administrative support** of Service forces assigned or attached to joint commands, subject to the following guidance:
 - **Under peacetime conditions**, the scope of the logistic and administrative responsibilities exercised by the commander of a combatant command will be consistent with the peacetime limitations imposed by legislation, DOD policy or regulations, budgetary considerations, local conditions, and other specific conditions prescribed by the Secretary of Defense or the Chairman of the Joint Chiefs of Staff. Where these factors preclude

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execution of a combatant commander's directive by component commanders, the comments and recommendations of the combatant commander, together with the comments of the component commander concerned, will normally be referred to the appropriate Military Department for consideration. If the matter is not resolved in a timely manner with the appropriate Military Department, it will be referred by the combatant commander through the Chairman of the Joint Chiefs of Staff to the Secretary of Defense.

• Under crisis action, wartime conditions or where critical situations make diversion of the normal logistic process necessary, the logistic and administrative authority of combatant commanders enable them to use all facilities and supplies of all forces assigned to their commands as necessary for the accomplishment of their missions.

• A combatant commander will exercise approval authority over Service logistic programs (base adjustments, force bedowns, and other aspects as appropriate) within the command's area of responsibility that will have significant effects on operational capability or sustainability. When the combatant commander does not concur in a proposed Service logistic program action and coordination between the combatant commander and the Service Chief fails to result in an arrangement suitable to all parties, the combatant commander may forward the issue through the Chairman of the Joint Chiefs of Staff to the Secretary of Defense for resolution.

b. Implementation and Execution. Implementation and execution of logistic functions remains the responsibility of the Services, US Special Operations Command, and the Service component commanders.

c. Single-Service Logistic Support. Each Service is responsible for the logistic support of its own forces, except when logistic support is otherwise provided for by agreements with national agencies or allies, or by assignments to common, joint, or cross-servicing. The combatant commanders may determine that common servicing would be beneficial within the theater or a designated area. If so, the combatant commander may delegate the responsibility for providing or coordinating service for all Service components in the theater or designated area to the Service component that is the dominant user.

d. Review of Requirements. The combatant commander will review requirements of the Service component commands and establish priorities through the deliberate planning process to use supplies, facilities, mobility assets, and personnel effectively and will provide balanced and uniform plans in furtherance of the command's mission.

e. Transfer of Functions and Facilities Among Services. The CINCs should give appropriate guidance to their components for transferring forces and rendering support. Under wartime or crisis conditions, a CINC may direct transfer of functions as necessary. This authorization of directive authority is not intended to abrogate Service responsibility for logistic support. Every effort will be made to obtain the

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Service's concurrence through coordination with Service component commands or directly to the headquarters of the appropriate Service. Under all conditions, the **implementation of such a directed transfer**, including administrative and procedural aspects, is the **responsibility of the Service component commanders** involved. The combatant commander retains the responsibility for overseeing and resolving issues.

f. Forces Subordinate to Combatant Commands

- Logistic responsibilities for forces subordinate to the combatant command will follow **single-Service command channels**, except for the following:
- When specifically directed otherwise either by the authority assigning those subordinate forces to the combatant command or by the Secretary of Defense.

- When common, joint, or cross-servicing agreements and procedures provide other responsibilities.
- The geographic combatant commander may delegate to the commander of a subordinate joint force **directive authority for a common support capability** within that subordinate commander's joint operations area.

3. Supply

- a. **Geographic Combatant Commander.** A geographic combatant commander's responsibilities for supply are illustrated in Figure I-5. Geographic combatant commanders are responsible for **effectively coordinating supply support** between the Service components, **establishing supply buildup rates**, and **stating theater stockage levels**. When practical to improve economy of effort, common-item support may be assigned to a Service component command, normally

GEOGRAPHIC COMBATANT COMMANDERS' RESPONSIBILITIES FOR SUPPLY

- **Coordinating supply support**
- **Establishing supply buildup rates**
- **Stating theater stockage levels**
- **Allocating critical logistic resources**
- **Reviewing statements of requirements**
- **Providing supplies to civilians**
- **Recommending the priority of the phase buildup and cutback**

Figure I-5. Geographic Combatant Commanders' Responsibilities for Supply

Authorities and Responsibilities for Logistic Operations

the dominant user. Geographic combatant commanders are also responsible for the **allocation of critical logistic resources** within their theaters. They must ensure that statements of the requirements of assigned forces (including mutual support arrangements and associated inter-Service support agreements) are prepared and submitted in accordance with existing directives of the Secretary of Defense, the Secretaries of the Military Departments, and the Chiefs of the Services.

b. Commanders of Service Component Commands. Subject to combatant commanders' responsibility and authority as outlined above, commanders of the Service component commands are responsible for **logistic support of their forces and direct communication with appropriate headquarters** on all supply matters, and related requirements, such as the deployment of supplies, materiel, and equipment into the AOR. Commanders of component commands will keep the geographic combatant commander informed of the status of supply matters affecting readiness of their forces.

c. Commanders of Subordinate Commands. Commanders of subordinate commands may be assigned the responsibility for providing **supply support** to elements or individuals of other Services within the theater or designated area.

d. Supplies for Civilians. The geographic combatant commander is responsible for **provision of supplies to civilians** in occupied areas in accordance with current directives, obligations, and treaties the United States recognizes.

e. Priority of Phased Buildup and Cutback. The geographic combatant

commander is responsible for recommending to the Chairman of the Joint Chiefs of Staff the priority of the phased buildup and cutback of supplies, installations, and organizations essential to the mission.

4. Distribution

Distribution is a function of visibility, management, and transportation. The geographic combatant commander is responsible for maintaining an **effective theater distribution network** that is consistent with the Services' intertheater policy and procedures and for prescribing unique policies and procedures relating to the theater's distribution network. In general, the commanders of Service component commands will operate their distribution networks in accordance with established Service procedures, using established channels of distribution whenever possible.

5. Maintenance and Salvage

Geographic combatant commanders are responsible for **coordination of maintenance and salvage** within the theater. Where practical, **maintenance facilities for joint or cross-Service use** should be established, and inter-Service use of salvage assets should be emphasized. However, Service-peculiar item maintenance support should remain the responsibility of Service component commanders. **Maintenance priorities** should emphasize mission-essential weapon systems that can be rapidly returned to combat readiness. An **effective maintenance program** (including preventive maintenance) can minimize retrograde and supply needs for major end-items and enhance battle damage repair efforts.

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6. Facilities Engineering and Base Development

a. Base Establishment. Geographic combatant commanders are responsible for the establishment of bases necessary to accomplish the mission.

b. Real Estate Requirements. Geographic combatant commanders are responsible for coordination of real estate requirements within the theater. Inter-Service use of real estate should be encouraged to the maximum extent possible. Geographic combatant commanders will resolve conflicting requirements for additional real estate and incompatible use of existing real estate.

c. Facilities Construction. Combatant commanders are responsible for prioritizing, planning, and coordinating the construction of roads, bridges, and facilities necessary to support their mission. Overseas contingency construction project requests require geographic combatant commander validation. Additionally, the CINC will determine priorities for programming facilities necessary to support the mission.

d. Assignment of Facilities. The Services are normally responsible for facility acquisition funding and support. Geographic combatant commanders should ensure that the minimum essential engineering and facilities required to support the theater operational and tactical requirements are assigned to the Service components. Based on mission requirements, the combatant commander may direct temporary transfer between Service components. Use of local facilities should be maximized, especially in occupied areas.

7. Transportation

The **Commander in Chief, US Transportation Command** (USCINCTRANS) has the mission to **provide strategic air, land, and sea transportation to deploy, employ, and sustain military forces** to meet national security objectives across the range of military operations. Combatant commanders coordinate their movement requirements and required delivery dates with USCINCTRANS who, with the transportation component commands, provides a **complete movement system** from origin to initial theater destination. This system includes the effective use of military and commercial assets. Finally, USCINCTRANS has the authority to procure commercial transportation services through component commands (within legal constraints) and to activate, with approval of the Secretary of Defense, the Civil Reserve Air Fleet, Ready Reserve Force (RRF), and Sealift Readiness Program.

a. Air Mobility Command, Military Sealift Command, and Military Traffic Management Command Transportation Facilities and Supplies.

Air Mobility Command (AMC), Military Sealift Command (MSC), and Military Traffic Management Command (MTMC) transportation **facilities and supplies not assigned to the geographic combatant commander** are normally **exempted** from the logistic authority of the geographic combatant commander. Combatant commanders should communicate their requirements and priorities for modification of existing facilities and establishment of new transportation facilities to Service component commanders and USCINCTRANS.

Authorities and Responsibilities for Logistic Operations

b. Air and Water Ports

Most airports and seaports located outside CONUS are operated and controlled by host nations (HNs) but may be augmented by US forces. **During wartime, each Service has primary responsibility for loading and unloading its military units.** The responsibilities of AMC and individual units moving via AMC or AMC-controlled aircraft are contained in multi-Service publications.

relationship will be put forth in future DOD directives and joint publications.

9. Health Services

Geographic combatant commanders are responsible for coordinating and integrating **health service support (HSS)** within their theaters. Where practical, **joint use of available medical assets** will be accomplished to support the warfighting strategy and concept of operations. Combatant commanders



The sealift element of the Strategic Mobility Triad provides logistic support with almost unlimited capacity.

8. Procurement

Logistic procurement is generally a **national and Service responsibility**. Currently, the CINCs have only indirect influence on Service procurement. The CINCs use a series of reports and messages to the Services, Chairman of the Joint Chiefs of Staff, or Defense Programming Resources Board, such as the integrated priority lists, critical item lists, and Defense budget issues to influence the budget system. The CINCs' role in the Planning, Programming, and Budgeting System is changing and this

should ensure that the HSS system accomplishes the goals of returning ill and injured combatants to duty as far forward as possible and stabilizing and rapidly evacuating those patients who cannot return to duty within the established theater evacuation policy.

10. Field Services

Combatant commanders are responsible for the **search, recovery, identification, care, and evacuation or disposition of deceased personnel** within their theaters. The responsibility extends not only to

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deceased personnel of US forces, but also to allied, third country, and enemy dead. For humanitarian, health, and morale reasons, this responsibility may extend to the local populace. Combatant commanders are responsible for **controlling and coordinating mortuary affairs operations** within their theaters. This responsibility also pertains to peacetime mass fatality incidents.

11. Command, Control, Communications, Computer Systems, and Intelligence Support

Effective command, control, communications, computers, and intelligence (C4I) are vital to **planning, initiating, conducting, sustaining, and protecting** a successful joint operation. Logistic, operations, and intelligence functions all depend on responsive C4I, the **central system tying together all aspects of joint operations** and allowing commanders and their staffs to initiate, direct, monitor, question, and react. Integrating logistic and operational command,

control, communications, and computers (C4) systems is essential. Logistic C4 needs should be included in the operation's C4I system plans.

12. Security Assistance

Combatant commanders will identify materiel requirements for regional minimum-essential security assistance and consolidate and prioritize wartime requirements within their theaters.

13. Wartime Host-Nation Support

a. Authority for Negotiations. Geographic combatant commanders will obtain authority for negotiations with HNs through Joint Staff, Office of the Secretary of Defense (OSD), and Department of State channels. **Assistance sought from HNs** can include, but is not limited to, petroleum, oils, and lubricants (POL); transportation; telecommunications; civilian labor; rear area protection; facilities; contracting; acquisition of



Figure I-6. Assistance Sought from Host Nations

Authorities and Responsibilities for Logistic Operations

POL DRUMS AS BOARDING PASSES

Backed up against the North Korean port city of Hungnam, the U.S. X Corps began an amphibious evacuation in late December, 1950. Removing the troops, their equipment, and materiel was complicated by the presence of thousands of North Korean refugees, who also wanted to be evacuated. Further cluttering the beach were approximately 50,000 drums of petroleum, oil, and lubricants (POL) to be brought away or destroyed. Although the Navy had plenty of ships for the evacuation, there was no manpower to move the POL drums to the ships.

The corps commander, Lieutenant General Edward M. Almond, conferred with his staff. The POL would have to be destroyed unless a labor source appeared. Then, a simple and sensible solution came to him: Any two refugees who rolled a POL drum to the waters' edge, where it could be loaded, could also board the ship. By that simple solution, over 100,000 North Koreans bought passage to freedom.

SOURCE: Shepard, James C. "POL Drums as Boarding Passes."
Vignettes of Military History, Carlisle Barracks, PA: US Army Military History Institute, 1976

equipment; supplies; services; and HSS. Areas of potential host-nation support (HNS) are shown in Figure I-6.

negotiations occur when military members show **competence** in local **language** and **customs**.

b. Facilities and Real Estate. Geographic combatant commanders must coordinate with the HN for the acquisition and use of facilities and real estate.

14. Counterintelligence (CI) Support

c. Acquisition Cross-Service Agreements. Geographic combatant commanders and component commanders will **ensure use of existing HNS**, if applicable, to avoid duplication of effort with the HN. Component commanders will inform the combatant commander if an **acquisition cross-service agreement (ACSA)** exists with the HN. If one does not exist, the CINC or subordinate commander can take steps to initiate an ACSA with the HN when having one would be advantageous.

Critical to logistic operations is an **accurate picture of the threat** through which the theater logistic forces must travel. **Hostile activities** can impede forward movement, destroy logistic stockpiles, close airports and seaports, and destroy prime movers of critical logistic elements. **Hostile actions** can render invalid logistic support assumptions made during deliberate planning. Knowledge of the potential threat (including terrorism, hostile special operations forces, refugees, and other aspects as appropriate) is critical to the logistic effort. CI provides threat assessments, effects liaison with HN security and intelligence services, and conducts operations and investigations to identify and/or neutralize the threat. Combatant commanders should be aware of CI capabilities and can obtain assistance through the CINC's Counterintelligence Security Officer.

d. Language Support. Geographic combatant commanders and component commanders should make every effort to **obtain language support** for negotiations with local nationals. The most effective

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CHAPTER II

LOGISTIC PRINCIPLES AND CONSIDERATIONS

"In order to make assured conquests it is necessary always to proceed within the rules: to advance, to establish yourself solidly, to advance and establish yourself again, and always prepare to have within reach of your army your resources and your requirements."

Frederick the Great: Instructions for His Generals, ii, 1747

1. General

a. **The principles of logistics complement the principles of war.** This chapter provides logistic principles and considerations that historically have been proven important. These principles and considerations serve as a guide to commanders and their staffs for planning and conducting logistic support for joint operations.

b. To support the national military strategy, logistics must be **responsive** in and **capable** of meeting military personnel, equipment, mobility, medical readiness, infrastructure, and sustainment requirements of the Department of Defense across the range of military operations. Logistics must **integrate the national and theater effort** in mobilizing and demobilizing, deploying and redeploying, and sustaining the employment concept of a combatant commander. Seldom will all logistic principles exert equal influence; usually, **one or two will dominate** in any given situation. Identifying those principles that have priority in a specific situation is essential to establishing **effective support**. The application of the principles to the specific mission and situation dictates the concept of logistic support. Analysis may reveal a conflict between the various principles when applied in a particular situation. For example, what is economical may lack responsiveness. Logistic principles, which are as much art

as science, are used best by experienced logisticians. The principles of logistic support are not a checklist but rather a **guide** for analytical thinking and prudent planning.

2. Principles of Logistics

Figure II-1 shows the Principles of Logistics.

a. **Responsiveness.** Responsiveness is the **right support in the right place at the right time**. Among the logistic principles, responsiveness is the **keystone**; all else becomes irrelevant if the logistic system cannot support the concept of operations of the supported commander.

b. **Simplicity.** Simplicity is **avoidance of complexity** and often fosters efficiency in both the planning and execution of national and theater logistic operations. **Mission-type orders** and **standardized procedures** contribute to simplicity. **Establishment of priorities** and **preallocation of supplies and services** by the supported unit can simplify logistic support operations.

c. **Flexibility.** Flexibility is the **ability to adapt logistic structures and procedures to changing situations, missions, and concepts of operation**. Logistic plans and operations must be flexible to achieve both responsiveness and economy. The commander must retain **positive C2** over subordinate

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organizations to maintain flexibility. The principle of flexibility also includes the concepts of alternative planning, anticipation, reserve assets, redundancy, forward support of phased logistics, and centralized control with decentralized operations.

d. Economy. Economy is the **provision of support at the least cost**. At some level and to some degree, resources are always limited. When prioritizing and allocating resources, the commander must continuously consider economy.

e. Attainability. Attainability (or adequacy) is the **ability to provide the minimum essential supplies and services required to begin combat operations**. The commander's logistic

staff **develops** the concept of logistic support, **completes** the logistic estimate, and initiates resource identification based on supported commander's requirements, priorities, and apportionment. An operation should not begin until minimum essential levels of support are on hand.

f. Sustainability. Sustainability is a measure of the ability to maintain logistic support to all users throughout the theater for the duration of the operation. Sustainability focuses the supporting commander's attention on long-term objectives and capabilities of the supported forces. Long-term support is the greatest challenge for the logistician, who must not only attain the minimum essential materiel levels to initiate combat operations (readiness) but must also sustain those operations.

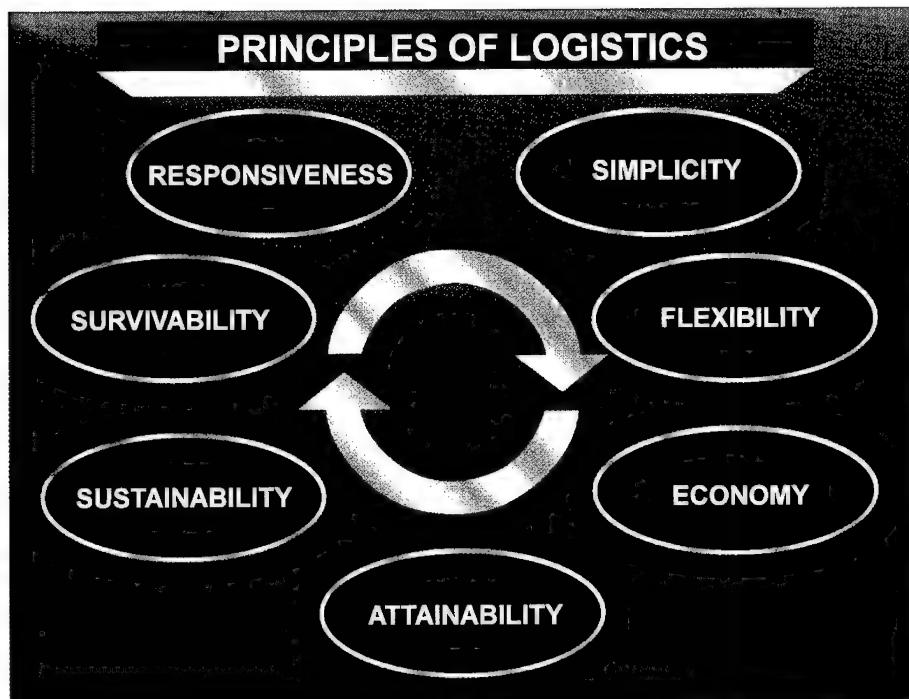


Figure II-1. Principles of Logistics

Logistic Principles and Considerations

A HOLEY WAR

The adage "The uniform makes the soldier" was not taken seriously by the Civil War doughboy. Rather, both Yank and Reb had more ridicule for his issue of clothing than he had praise. The soldier satire concerning his wearing apparel provides some notes of humor which have come to be termed "the lighter side of war" but which in most cases were as serious to him as fighting the enemy.

The black felt dress hat received much scorn. One disgusted Yank of the 15th Massachusetts Infantry Regiment wrote, "My new hat looks as near like the pictures that you see of the pilgrim fathers landing on Plymouth, tall, stiff, and turned up on one side with a feather on it . . . I don't wear it any more than I am obliged to." Valerius C. Giles of the 4th Texas Infantry Regiment, C.S.A., tells the story that when he strode into camp wearing his new black hat, one of his company derided him with, "Where did you get that hat? Come down out of that, I know you are there! I see your feet a-wiggling." Giles crushed his hat so as to change its original appearance forever, to the approval of his friends.

The issue of clothing was also ludicrous. One soldier from the 2nd New Hampshire Infantry Regiment wrote, "A company at a time, the men were marched over to the 'old custom house,' made their individual selections from the grand jumble of garments, and generally went forth with misfits of a more or less exasperating nature." The durability of the clothing also left something to be desired. A Reb wrote in 1864 that, "In this army one hole in the seat of the breeches indicates a Captain — two holes a lieutenant and the seat of the pants all out indicates that the individual is a private." A disgruntled Yank from Massachusetts covered a gaping hole in his trousers with a shingle on which was inscribed, "The Last Shift of a Soldier."

But the epitome of soldier expressions about uniform problems was best displayed by members of Company A, 10th New York Infantry Regiment, whose uniforms had been worn to shreds and who had received no new issues except for socks, drawers, and undershirts. One afternoon the company fell out for parade attired only in clean underwear, under the command of First Sergeant Oscar F. Angell, "his sergeant's sash, belt and sword rather too clearly defined against the ground of white."

SOURCE: Winey, Michael "A Holey War," *Vignettes of Military History*, Carlisle Barracks, PA: US Army Military History Institute, 1978

g. Survivability. Survivability is the capacity of the organization to prevail in the face of potential destruction. Examples of military objectives selected for their effect on logistics and subsequent theater operational capability include industrial centers, airfields, seaports, railheads, supply points and depots, lines

of communications (LOC), shipping, rail and road bridges, and intersections. Logistic units and installations are also **high-value targets** that must be safeguarded by both active and passive measures. **Active measures** must include a plan for ground defense of logistic installations with provisions for

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reinforcement and fire support. **Passive measures** include dispersion, physical protection of personnel and equipment, deception, and limiting the size and capabilities of an installation to what is

a. **Logistics as a Factor in Determining Objectives.** Depending on the theater operation and logistic concepts a geographic combatant commander employs in a campaign, logistic factors



The C-9 is the mainstay of the domestic Aeromedical Evacuation system element.

essential for the mission. Although the physical environment will most often only degrade logistic capabilities rather than destroy them, it must be considered when planning. Survivability may dictate **dispersion and decentralization** at the expense of economy. The allocation of reserves, development of alternatives, and phasing of logistic support contribute to survivability. These concepts are related to logistic indicators. (See Appendix C, "Logistic Indicators.")

will almost always affect a theater campaign and exert different constraints. **Strategically**, logistic capabilities may limit the deployment, concentration, and employment options available to the NCA, Chairman of the Joint Chiefs of Staff, or combatant commanders. **Operationally**, theater logistic constraints may dictate the rate of strategic buildup or theater onward movement, overall size of the combat force, the depth of any attack, or the speed of advance.

3. Logistic Considerations

"Logistics comprises the means and arrangements which work out the plans of strategy and tactics. Strategy decides where to act; logistics brings the troops to this point."

Jomini: Precis de l' Art de la Guerre, 1838

b. **Coordination of Logistic Planning With Operation Planning.** Operations and logistics are inseparable facets of war. Neither can claim primacy; each is integral to the other. **Integration** of the operation and logistic planners' efforts is **necessary** throughout the planning and execution phases. Although obvious, such integration does not occur automatically. Command interest at all levels is essential.

Logistic Principles and Considerations

c. **Forward Impetus.** The impetus of logistic support is from CONUS into the theater and forward. A system of continuous replenishment may take the form of either **automatic (push)** replenishment or **requisitioning (pull)** replenishment. Whenever possible, the **push system is preferred** to increase scheduled replenishment and reduce requirements on the logistic C4 system. Ideally, forward commanders should be relieved of logistic support details without impairing control of their organic logistic support capabilities.

d. **Balance Between Combat Forces and Logistic Forces**

- The aim of any military organization is to produce the **greatest possible combat power with the resources available**. Commanders must determine the **proper balance** based on the differences between various logistic and operation concepts. Efforts to enhance combat power by arbitrarily shifting logistic manpower into combat units may achieve the opposite result. Each campaign or operation demands its own analysis of the proper balance between supported and supporting forces: supported forces versus combat forces, and supporting forces versus logistic force ratios are ways of assessing requirements and capabilities. The **requisite strength** of combat support (CS)/combat service support (CSS) elements depends on many factors such as the **gross requirements** for logistic resources and where and when they are needed, the **adequacy of available transportation** networks and assets, the **length of the LOC**, the **availability of local labor**, and the **types of operations** being supported. (Commanders must be

careful making assumptions about use and availability of local labor for augmentation of support forces. Assuming local labor will provide augmentation during hostilities significantly increases risk.)

- The **balance at the beginning of hostilities** is especially important. Fully trained and equipped CS/CSS elements must be available and deployed in adequate numbers to render immediate sustained support to the combat troops. A combat force without logistic support is **immobile** and **powerless**. Commanders should give serious consideration to the **availability, capability, state of organization, and limitations** of CS/CSS forces allocated to them for wartime operations. This is especially critical when US CS/CSS force structure has been reduced in anticipation of the availability of HN assets. **Mobilization** requires particularly **close coordination** of effort among the Department of Defense, combatant commands, and Service headquarters and between the supporting establishment and operating forces. Determining when CS/CSS elements should be mobilized is based on the concept of employment for the combat forces they will support. This might require that CS/CSS forces be mobilized or deployed at the same time as, or even before, combat forces.

e. **Command and Control of Logistics**

- **Unity of command** is essential to coordinate national and theater logistic operations. Logistics is a function of command. To exercise control at the strategic, operational, and tactical levels of war,

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commanders must also exercise **control over logistics**. For a given area and for a given mission, a single command authority should be responsible for logistics.

- **Sound logistic planning** forms the foundation for strategic, operational, and tactical **flexibility** and **mobility**. To influence the relative combat power of his force, the commander must have **adequate control** of the command's logistic support capability.
- The **logistic support system** must be in harmony with the structure and employment of the combat forces it supports. This unity of effort is best attained under a **single command authority**. Wherever feasible, peacetime chains of command and staffs should be **organized during peacetime to avoid reorganization during war**. This includes Reserve component forces (US and HN) that may be assigned specific theater missions. Commanders must be able to call forward, in a timely manner, those assets needed to initiate and sustain war.

f. Apportionment and Allocations

- **Apportionment** is distribution for planning of limited resources among competing requirements, whereas **allocation** is distribution of limited resources among competing requirements for employment. A **priority** is a relative order of need for a commodity or service when requirements exceed availability.
- The **senior commander** will usually attain the best results by apportioning and allocating **reasonably expected and available resources** among

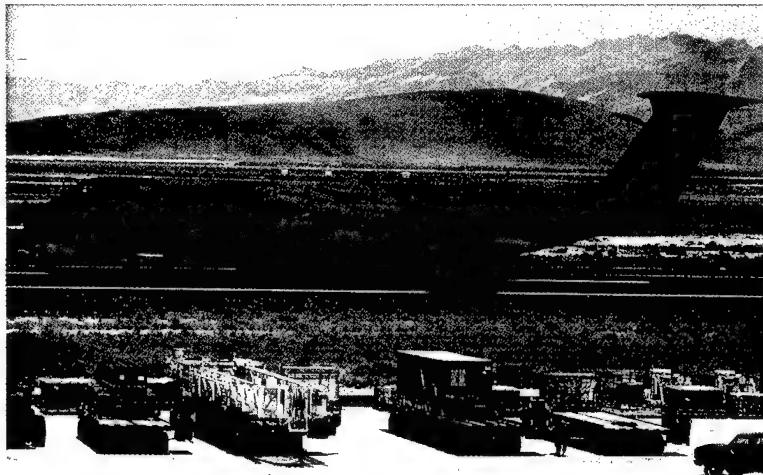
subordinate commanders based on the concept of operations and the subordinate commanders' stated requirements. **Allocations will often be less than the amounts requested** by, or apportioned to, some of the subordinate commanders, because the availability of logistic assets will often be less than the requirement.

- **Failure to maintain a system of apportionments and allocations** can cause an inflation of priorities, the ultimate breakdown of the priority system, and the senior commander's loss of control over the logistic system. Strategic and operational apportionment and allocation issues can first be addressed during the deliberate planning process and subsequently through either the Joint Staff and combatant commanders **use of a Joint Materiel Priorities and Allocation Board (JMPAB) or Joint Transportation Board (JTB)** as outlined in Appendix B, "Organization and Functions of Combatant Command Logistic Staff (J-4) and Functions of Joint Logistic Centers, Offices and Boards."
- **Threat distribution and phase duration** are useful tools for determining the allocation of resources. Using **threat distribution**, the joint force commander (JFC) will assign destruction of a portion of the enemy's total combat capability (i.e., forces, installations, organizations) to Service component commands. An example of threat distribution would be to assign destruction of a certain percentage of enemy mechanized, armor, follow-on-forces, and artillery forces during an air operations phase among the Services. The remaining percentage of the threat, increased

Logistic Principles and Considerations

intentionally to provide a deliberate total overlap, would be distributed among the Services during the ground maneuver operations phases. Phase

come as close to it as possible. If they do not create and train an organization in peacetime that will work in war, the leadership will be burdened with urgent



The C-5B provides rapid response to strategic logistics requirements.

duration is the JFC's projection of how long a specific phase of an operation is expected to last. Two examples of phase duration: the air operation will last a certain number of days (time oriented) or the air operation will last until a certain percentage of enemy ground threat is destroyed (objective oriented). Threat distribution and phase duration help identify where the weight of the campaign will fall during various phases to prevent unnecessary duplication of support to different components.

g. Accommodation for Wartime Requirements. The ideal logistic organization, within the nation's economy and the military, would **not require a fundamental change to manage the transition from peace to war** to meet an emergency. Although civilian and military leaders will be prevented by reason of practicability from attaining the ideal, they should strive to

reorganization and training requirements at a time when they should be free to focus on the employment of that organization.

h. Logistic Discipline

- **Logistic resources are always constrained.** At the **theater (strategic) level**, these limitations are either fiscal constraints or the unavailability of materials, industrial facilities, and skilled labor and long leadtimes for mobilization and deployment, which affect the strategic concentration of forces and supplies within the theater. At the **operational and tactical levels**, common limitations are attributed to: (a) inadequate transportation means and port capacities; (b) insufficient quantities of certain munitions, equipment, and critical spare parts; (c) the lack of trained logistic personnel; and (d) the failure to plan for adequate, interoperable C4 systems. Unwise use of logistic

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resources means combat forces will be deprived of manpower, equipment, supplies, or training, and constitutes a disregard for economy of force.

- True **economy of supply** requires the **careful planning and buildup of levels** to provide those resources and combat facilities, based on threat distribution and phase duration, that are essential to initiate and sustain combat operations. At the same time, avoid building too large a stockpile. Excess stocks decrease flexibility, drain transportation resources from other priorities, and deny sustainment to other areas.
- In all cases, the **cost** of any military operation **must be considered**; usually the most **efficient** means consistent with the concept of operations should be chosen.

i. Movement Control. Deployment begins as specified in appropriate orders. USTRANSCOM monitors and provides movement summaries of AMC, MSC, MTMC, and organic movements from departure to arrival in the theater. USTRANSCOM also maintains the Joint Operation Planning and Execution System (JOPES) data base and provides analysis to the Joint Staff, supported command, and others. This analysis includes progress reports, status, problems, force closure, port workloads, daily movement statistics, and resolution of problems encountered with common-user transportation means. JOPES and the **Joint Planning and Execution Community** provide the JFC with a capability to change or delete requirements during main force deployment. The **geographic combatant commander** is responsible for the **integration of the intratheater movement required and the strategic**

concentration of forces and logistics. Inadequate control of movement, whether into or within the theater, results in waste, reduced logistic efficiency, and, consequently, a loss of potential combat power.

j. Deployment Information Flow. **Accurate, up-to-date information is vital to effective logistic planning, coordinating unit movements, and sustainment operations.** It is almost as important to know where units and supplies are as it is to have them physically present. OPLANs are published in JOPES format using the Worldwide Military Command and Control System (WWMCCS). JOPES is used to monitor, plan, and execute mobilization, deployment, employment, and sustainment activities. JOPES supports national, theater-level, and supporting structures in peacetime and wartime. JOPES is the single tool used by the Joint Chiefs of Staff, supported and supporting CINCs, and Chiefs of the Services to monitor and update deployment information. **Access to JOPES via WWMCCS is critical** to deploying and supporting forces. During planning and execution, the supported and supporting CINCs will in most cases make decisions concerning priority of forces and allocation of scarce airlift and sealift based solely on information in JOPES.

k. Logistic Reserves. **Logistics can be a pacing factor** at the operational level of war when it determines how quickly a campaign can proceed. Just as strategic and operational reserves are necessary to exploit tactical or operational success or respond to unanticipated contingencies, it is necessary to **establish reserves of logistic resources** that can be committed only by the geographic combatant commander. Examples of logistic reserves are **materiel** and **unexploited HNS**

Logistic Principles and Considerations

resources. Combatant commanders and Service component commanders contemplating war and operations other than war in undeveloped theaters of operations must give adequate consideration to **prepositioning**. This should include an analysis of established agreements with foreign nations.

1. Industrial Base Requirements.

Planners must identify the items that must come directly from the industrial base vice existing stocks. Contractors may require time to restart production lines, acquire raw materials, and retrain their labor force.

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CHAPTER III

JOINT LOGISTIC PLANNING

"Logistics sets the campaign's operational limits. The lead time needed to arrange logistics support and resolve logistics concerns requires continuous integration of logistic considerations into the operational planning process. This is especially critical when available planning time is short. Constant coordination and cooperation between the combatant command and component staffs—and with other combatant commands—is a prerequisite for ensuring timely command awareness and oversight of deployment, readiness, and sustainment issues in the theater of war."

Joint Pub 1: Joint Warfare of the Armed Forces of the United States

1. General

Joint logistics is a complex, interdependent concept that can apply leverage (plus or minus) to a combatant commander's combat power. An understanding of the combatant commander's concept of operations and early involvement by the logistic staff will ensure that national and theater deployment and sustainment requirements are balanced with logistic capabilities. **Logistic planning**

considerations aid the combatant commander in providing guidance to staff planners and assessing the adequacy and feasibility of campaign and operation plans. Joint Pub 5-0, "Doctrine for Planning Joint Operations," discusses **sustainment planning** which is directed toward **providing and maintaining levels of personnel, materiel, and consumables** required to sustain the planned levels of combat activity for the estimated duration and at the desired level of intensity.

SQUARE RIGGERS AND JERRY RIGGERS

Headlines of the mid-1970's repeatedly proclaim the imminence of a petroleum shortage. Half a century of extensive use of petroleum fuel has created the problem. Yet even at the dawning of the Petroleum Age there were some who suffered from lack of it - not because it did not exist, not because it could not be obtained, but because its use was so unfamiliar.

The year was 1921. The United States Submarine R-14 was patrolling the sea. Like an increasing number of vessels, it was powered by petroleum, not coal. But unfamiliarity with the energy capabilities of oil led to a serious miscalculation: the ship ran out of fuel and became adrift on the high seas. What was to be done? The Navy, ever ready as always, had the answer: move backward through time in search of a fuel. Coal had preceded oil as an energy source, but, of course, the carboniferous fuel was no more available than oil on the bounding main. Back then to wind went the old Sea Dogs. They built masts from gun rammers and curtain rods and rigged to them sails made from blankets and hammocks. A noble clipper ship the R-14 was not, but she could at least now move. At the surpassing pace of two knots per hour, she sailed by wind power to port.

SOURCE: Naval Affairs, v. LVI, no. 6, June, 1977

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Sustainment planning is the responsibility of the combatant commanders in close coordination with the Services and Defense agencies. Joint Pub 5-03.2, “Joint Operation Planning and Execution System, Volume II (Planning and Execution Formats and Guidance),” requires an **estimate of logistic feasibility** of the OPLAN summary and detailed

functional component, and supporting command.

a. **Adaptability.** Plans should make **provisions for changes** to the concept of operations. These changes could include the need for creation of logistic support sites, additional security forces, more transportation, expanded port capacity,



Logistics over the shore operations where fixed port facilities are not available.

analysis relative to logistic support in the OPLAN’s Annex D. Appendix A, “Logistic Responsibilities Within the Department of Defense,” provides a listing of logistic responsibilities within the Department of Defense, and Appendix B, “Organization and Functions of Combatant Command Logistic Staff (J-4) and Functions of Joint Logistic Centers, Offices, and Boards” provides a list of joint logistic centers, offices, and boards that can help coordinate combatant commanders’ logistic efforts.

2. Importance of Logistic Planning

The combatant commanders’ campaign and operation plans should have **logistic implications coordinated at all levels:** international, national, Service and

logistics over-the-shore sites, and numerous other increases in logistic overhead. Plans should be written to anticipate changes.

b. **Benefits of Adequate Logistic Plans.** Proper logistic planning will **reduce the need for emergency measures and logistic improvisations**, which are usually expensive and often have an adverse effect on subordinate and adjacent commands.

c. **Equivalence of Deployment and Employment Planning.** Deployment planning is more deliberate and methodical than employment planning and lends itself better to automated data processing support. Logistic planners must **avoid focusing solely on the deployment requirements** at the expense

Joint Logistic Planning

of sustaining the employment concept of the campaign. Detailed logistic planning for employment is equally important and should neither be neglected nor delayed until deployment plans are completed. Only by **thorough and concurrent consideration** of both **deployment** and **employment** facets of the campaign or operation will planners be able to construct adequate logistic plans.

move forces and materiel into the theater base and on to desired operating locations, where operational logistic concepts are employed. With the transportation and distribution systems in mind, planners must determine the basic, but broad, mobilization, deployment, and sustainment requirements of the combatant commanders' concept of operations.

3. Integrating Logistic Plans

Logistic plans should be integrated with a combatant commander's operation plan annexes and with plans of other commands and organizations within the Department of Defense, as well as external departments and agencies and wartime HNS (WHNS) that will be supporting the combatant commanders. Appendix D, "Logistic Checklist for OPLAN Annex D," contains a generic list of issues or questions that a logistic planning staff should consider when attempting to integrate the activities and plans necessary for a successful OPLAN.

4. Levels of Logistic Planning

Logistic planning should be done at the strategic, operational, and tactical levels.

a. Strategic and Operational Logistic Support Concepts. Combatant commanders' strategic logistic concept will focus on the ability to **generate and**

b. Tactical Logistic Support Concepts. This planning is done primarily by the **Service components**. It includes **line-item planning** and involves the **detailed application** of the best planning factors available from historical usage data, analysis, or exercise experience. Also, planners determine the **size and precise location** of logistic facilities and units. Combatant commanders and their staffs should examine the Service components' methods, assumptions, and factors to **determine their validity and to guard against duplication of effort** and any tendency to establish unnecessarily high safety margins or standards of living.

5. Theater Organization

The area organization that evolves from the geographic combatant commander's concept of logistic support **should influence subordinate theater-level logistic decisions** on the items shown in Figure III-1.

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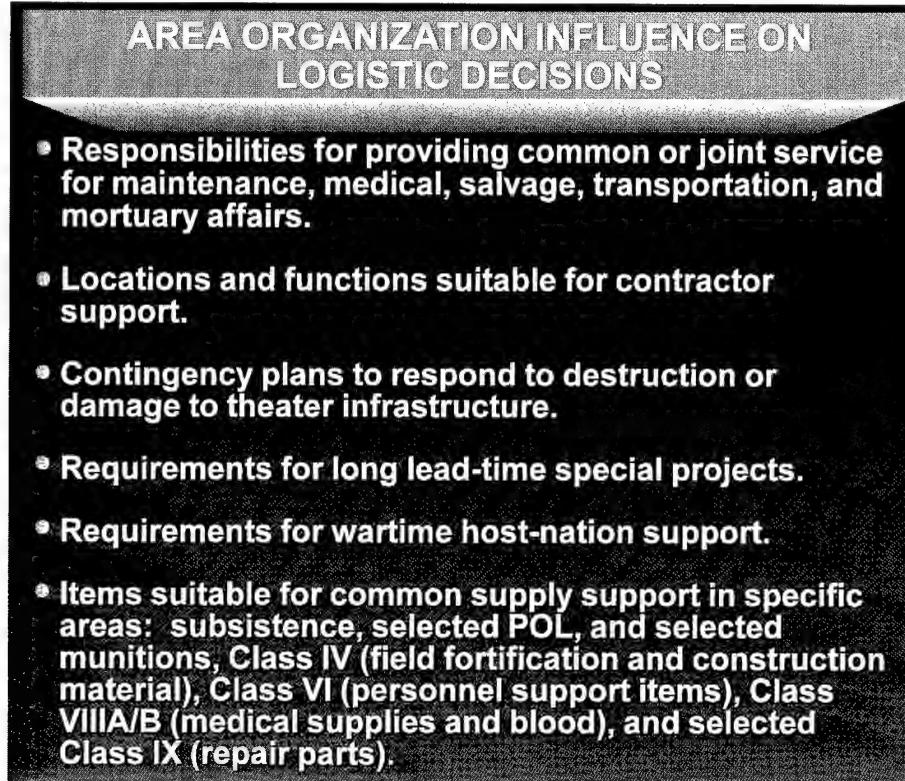


Figure III-1. Area Organization Influence on Logistic Decisions

6. Special Planning Considerations

Planners must identify critical or key issues unique to a specific joint operation plan they must support. Special planning considerations are shown in Figure III-2 and are discussed below.

a. **Demands of an Expanding Force.** Execution of an operation order (OPORD) or campaign plan or response to a crisis may be accompanied by **general expansion** of the Armed Forces of the United States. Historically, demand for items increases faster than the supply system can provide, and **special management actions** might become necessary. To anticipate campaign

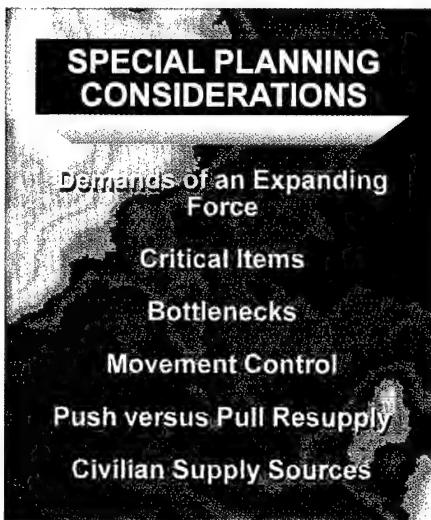


Figure III-2. Special Planning Considerations

Joint Logistic Planning

priorities, planners should: (1) **provide instructions or guidance for redistributing assets** from low- to high-priority organizations within the command; (2) **obtain assets from external sources** with lower priority needs; (3) **control the allocation of new assets** in short supply; and (4) provide

c. Bottlenecks. Logistic planners must understand the constraining factors affecting all phases of the deployment and sustainment plans. Intra-CONUS, intertheater, and intratheater movements can encounter bottlenecks that **limit or degrade the ability to support a campaign or operation plan**. Identifying



Movement of heavy units by rail.

efficient means to retrograde, repair, and reissue damaged or unserviceable critical items.

b. Critical Items. Critical supplies and materiel should be identified early in the planning process. Critical items are **supplies vital** to the support of operations that are in **short supply** or are expected to be in short supply. Special handling of requisitions or requests for transportation and critical items may be indicated.

"Mobility is the true test of a supply system."

Captain Sir Basil Liddell Hart:
Thoughts on War, 1944

bottlenecks en route to or within the theater is the first step in coordinating activities to avoid overloading LOC. Traditionally, limited unloading capacities at ports and airfields and limited inland transportation have constrained the operational reach of combat forces. Logistic planners must anticipate congestion and seek solutions to bottlenecks. Finally, if multinational operations are planned, the impact of multinational land, naval, and air forces for real estate, ship berthing and unloading facilities, transportation, labor, and construction materials on US force deployment and employment plans must be assessed.

Chapter III

d. Movement Control. Movement control must **coordinate the employment of all means of transportation** (including that provided by allies or HNs) to support the combatant commanders' concept of operations. **USCINCTRANS**, as the single transportation manager, will provide for proper liaison with the combatant commanders for movement of personnel and materiel **into the theater**. The **geographic combatant commanders will exercise control over intratheater movement**, although detailed coordination may be required to accommodate HN or allied requirements. Whatever unique circumstances prevail in a theater, logistic plans should provide combatant commanders with the **highest practicable degree of influence or control over movement**. Operational planners should anticipate exploiting an operational success and coordinate the probability of high-speed pursuit with logistic planners to ensure that the

operational forces do not operate further than their logistic resupply can provide timely support.

e. Push versus Pull Resupply. Automatic resupply works best for certain commodities and when valid usage rates are available. Whether certain units can be **resupplied automatically (push)** or **in response to their requisitions (pull)**, planners should determine supply requirements in the context of a unit's mission and its operating area. The plan should provide **flexibility** to adjust planning factors based on empirical data and to switch between push and pull resupply for various units, depending on the situation.

f. Civilian Supply Sources. Planning should **identify** sourcing of supplies and services from civilian sources and **integrate** them with operational requirements.

CHAPTER IV

JOINT THEATER LOGISTICS

"The more I see of war, the more I realize how it all depends on administration and transportation . . . It takes little skill or imagination to see where you would like your army to be and when; it takes much more knowledge and hard work to know where you can place your forces and whether you can maintain them there."

General A. C. P. Wavell, quoted in Martin Van Creveld's Supplying War, Logistics from Wallenstein to Patton, 1977

1. General

Joint theater logistics is applying logistic resources to **generate** and **support** theater combat power. This chapter focuses on the **combatant commander's theater logistic concepts**, including balancing objectives, scheme of maneuver, and operations timing. It discusses the concept of **extending operational reach** and concludes with a number of **specific logistic applications** that apply to the theater. Combatant commanders must ensure that their campaign plans fully integrate **operational and logistic capabilities**. The combatant commanders must maintain an interrelationship between operations and logistics by insisting on **close cooperation** and **early-on understanding** of the missions assigned to subordinate commanders. The influence of the combatant commander is essential in bridging any operations-logistic gap.

2. Combatant Commander's Logistic Concept

Although the commanders of Service component commands provide logistic resources, **combatant commanders** are responsible for ensuring that the **overall plan** for using these resources **supports** the theater concept of operations.

a. **The Logistic System.** A critical element of a theater logistic system is **timely integration of intertheater and intratheater transportation** of personnel and supplies in the theater distribution system. The means to move people and equipment forward and to evacuate them to the rear is fundamental to successful theater operations. As previously depicted in Figure I-2, the logistic system ranges from CONUS or the deployed support base through a theater port of entry and on to the forward areas of the theater.

- **Key Elements of the Logistic System** are illustrated in Figure IV-1.

Chapter IV

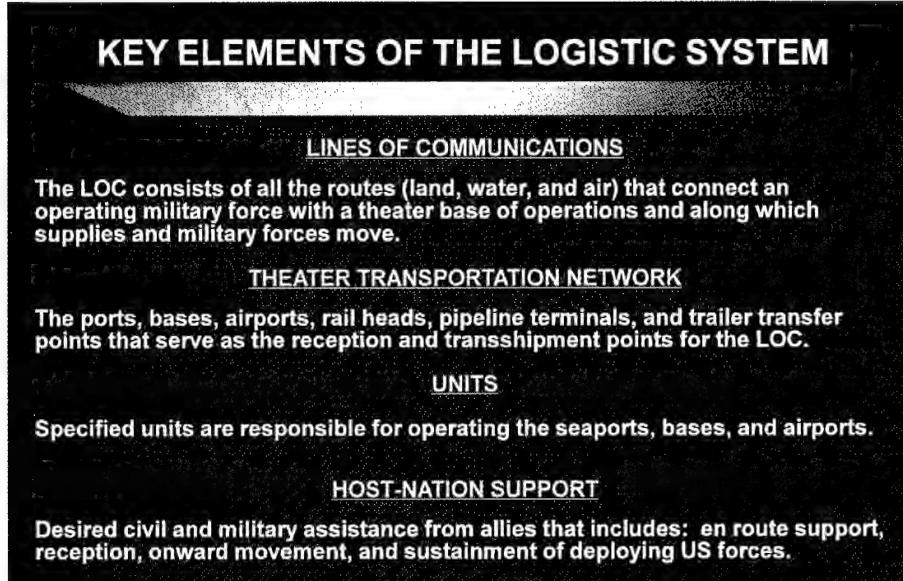


Figure IV-1. Key Elements of the Logistic System

- Considerations in Developing a Logistic System are shown in Figure IV-2 and are discussed below.

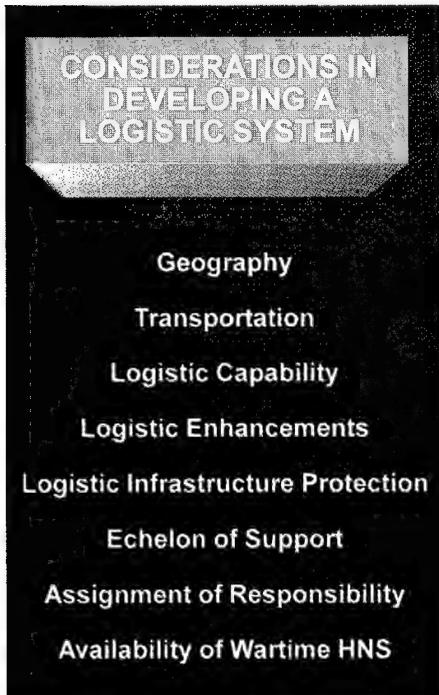


Figure IV-2. Considerations in Developing a Logistic System

• **Geography.** The planner must examine the impact of topography, climate, and external factors affecting the logistic system, especially the impact on the various segments of the transportation system, including all waterways, rail, roads, pipelines, and airways.

"Victory is the beautiful, bright-colored flower. Transport is the stem without which it could never have blossomed."

Winston Churchill: The River War,
vii, 1899

• **Transportation.** Many factors should influence the time-phased selection of transportation modes to meet operational requirements. For example, sealift is by far the most efficient mode for bulk tonnage; airlift is often the most expedient for people or for rapid movement of equipment and supplies when time is critical. On land, rail (for bulk

Joint Theater Logistics

tonnage) and pipeline (for bulk liquids) are more efficient than trucks.

• Logistic Capability. The ability of the base infrastructure to receive, warehouse, and issue logistic resources influences the efficiency of

the entire logistic system (for example, through the use of specialized container handling equipment). Infrastructure also limits the size of the force that can be supported.

FOR WANT OF SHOES

Benjamin Franklin, writing in Poor Richard, 1758, provided us with the droll little verse which began:

**“For the want of a nail a shoe was lost,
For the want of a shoe a horse was lost.”**

It continues through several causative links until the downfall of a kingdom could be ultimately attributed to the loss of a shoe. Franklin did not realize how prophetic his lines would prove to be in another conflict in his native land a little over a century after he penned those words.

Late June 1863, found “Marse” Robert E. Lee’s Army of Northern Virginia conducting a strategic invasion of the North calculated to result in victory for the South. On June 30, one of Lee’s brigades under Brigadier General Johnston Pettigrew moved eastward from Cashtown into the outskirts of Gettysburg, then a sleepy rural county seat in south-central Pennsylvania. Pettigrew’s mission was to enter the town and “liberate” a quantity of shoes, which sources had reported were there for the taking, in order that his ragged North Carolina infantry might be better shod.

His advance was thwarted by Brigadier General John Buford’s cavalry division scouting ahead of George Meade’s Army of the Potomac. Observing Federal horse soldiers in town, Pettigrew abandoned his quest and fell back westward to camp. He duly reported the presence of seasoned Union cavalry in Gettysburg. His division commander, Major-General Harry Heth, and his corps commander, Lieutenant-General A. P. Hill, were not convinced that his observations were completely accurate. They instead surmised that the cavalry was probably just Pennsylvania militia such as Lee’s veterans had easily scattered in earlier engagements. The two senior officers discussed the situation:

Heth: “If there is no objection, I will take my division tomorrow and go to Gettysburg and get those shoes!”

Hill: “None in the world.”

On 1 July, Heth led his division to Gettysburg.

* * * * *

Chapter IV

Lee, at his best on the defensive in prepared positions, had planned to fight the Yankees from the heights around Cashtown, but Hill and Heth proceeded to draw him into battle in a place not of his choosing. There the Graycoats found not shoes but Meade's determined Federal Army which fought them to a standstill. Lee retreated from Gettysburg, back into Virginia, and never returned. By spring of 1865 the Southern dream had faded, and the Confederacy died. To paraphrase Poor Richard:

"For want of some shoes a nation was lost."

SOURCE: Agnew, James B. For Want of Shoes, Vignettes of Military History, Carlisle Barracks, PA: US Army Military History Institute, 1978

• Logistic Enhancements. Plans should include means to reduce the impact of logistic bottlenecks. Some examples are opening or gaining access to high-capacity ports, expanding airfield parking aprons, additional materials handling equipment, and expedient airfield matting. Improved use of commercial International Standards Organization containers vice breakbulk can aid in port clearance; but planners should realize such a container policy may create problems elsewhere.

• Logistic Infrastructure Protection. Provisions must be made for security of the logistic system because it is an integral part of combat power. Specific discussion of protection of logistic infrastructure and LOCs, to include the designation of a joint rear area, is provided in Joint Pub 3-10, "Doctrine for Joint Rear Area Operations."

• Echelon of Support. The logistic system must be responsive to the needs of the most forward combat forces. It must start from CONUS and extend to the forward area of operations, providing supplies and services when and where they are needed.

• Assignment of Responsibility. Combatant commanders should assign responsibility for operating the seaports, bases, and airports to the Service components (or HNs, if applicable).

• Availability of Wartime HNS. The level of assistance in terms of transportation resources, labor, facilities, and materiel that can be provided by allied nations affects the amount of airlift and sealift that may be devoted to initial movement of combat forces or sustainment.

b. Theater Concept of Logistic Support. The concept of logistic support should derive from the estimate of logistic supportability of one or more courses of action (COAs). The CINC's directorate for logistics prepares these estimates for each alternative COA proposed by either the operations or planning directorate. The estimate of logistic supportability for the selected COA along with the logistic system framework considerations outlined above may be refined into the concept of logistic support for an operation or campaign.

- The concept of logistic support is the envisioned manner in which the **capabilities** and resources of the

Joint Theater Logistics

CINCs' components will be employed to **provide supply, maintenance, transportation, and engineering services**. It is the organization of capabilities and resources into an overall theater warfare support concept.

- The concept of logistic support should **specify how operations will be supported**. It should give special attention to the **major LOC** to be developed, as well as **wartime HNS** to be provided by each allied nation. If there is to be a communications zone to support air or land operations or a network of intermediate and advanced bases to support naval operations within a theater, the general organization and functions should be laid out. **Supporting paragraphs** should cover any topics

the CINC believes are necessary and **may include**:

• **Logistic Authority and Control of Logistic Flow.** Table IV-1 lists some of the responsibilities assigned by DOD directive or discussed in joint publications.

• **Guidance on Harmonization.** Multiple Military Services (United States and allied nations) may operate simultaneously within the theater and the LOC approaching the theater. Coordination of functions among all affected commands, nations, and agencies is essential to avoid confusion and unnecessary duplication. The combatant commanders should provide general guidance, by function and area, wherever needed to ensure unity of effort.

LOGISTIC AREA REFERENCES	
Function	References
Airlift Support	Joint Pub 4-01.1
Sealift Support	Joint Pub 4-01.2
Movement Control	Joint Pub 4-01.3
Water Terminal Operations	Joint Pub 4-01.5
Joint Logistics Over-the-Shore	Joint Pub 4-01.6
Medical Services	DODD 6480 and Joint Pub 4-02 series
Blood Program	DODD 6480 series
Petroleum Support	DODD 4140 series and Joint Pub 4-03
Engineer Support	Joint Pub 4-04
Mobilization Planning	Joint Pub 4-05
Mortuary Services	Joint Pub 4-06

Table IV-1. Logistic Area References

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.. Logistic C4 Systems. In addition to standard operating procedures for C4 systems, consideration should be given to backup plans or manual procedures in the event of possible C4 system outages or incompatible interfaces during combined operations.

.. Intratheater Support. Specific guidance should be provided for employment of all available logistic

At the strategic level, the combatant commanders focus primarily on **defeating the enemy's strategy and will and on gaining strategic depth, initiative, and advantage** by proper strategic concentration of forces and logistics. The combatant commanders direct the operating forces to accomplish these tasks. The operating forces' view of operational reach centers on the range at which commanders can **mass and employ forces decisively**. It goes beyond merely



Sealifting combat and supporting units extends operational reach.

infrastructure, including allied civilian and military support. In addition, the geographic combatant commander can assign logistic responsibility for the theater to the predominant user of a particular category of support (i.e., intratheater transportation is frequently an Army component responsibility).

3. Extending Operational Reach

a. Operational reach is the **distance over which military power can be concentrated and employed decisively**.

conducting reconnaissance or strike operations at a distance. Operational reach is influenced by the length, efficiency, and security of the LOC. Operational reach also depends on the ability to phase reserves and materiel forward. Finally, it must include the operating ranges and endurance of combat forces and sustainment. The combatant commander may seek to extend operational reach (with associated increase in risk) by **deploying forces ahead of supporting CSS forces**. The logistian must then creatively use available assets to provide **the minimum level of sustainment** to the deployed forces. Operational reach may be

Joint Theater Logistics

improved by establishing advanced bases or depots and by improving the security and efficiency of the LOC.

b. Operational reach is a relative value. It may be improved by denying one or several components of the enemy's operational reach. The essence of a campaign plan is to accomplish the assigned national strategic objectives with logistics providing the extension of the CINC's strategic and operational reach into the enemy's depths while denying operational reach to the enemy.

c. As CINCs move forces forward, they must gain control of C4 system centers, transportation nodes, and prospective base areas. These centers and areas become physical objectives for the combat forces to seize, control, and pass to the logistic system as it moves forward to exploit new gains. The resulting **forward momentum** of the logistic system results in **an extension of the operational reach and endurance of the combat forces**.

"Sound logistics forms the foundation for the development of strategic flexibility and mobility. If such flexibility is to be exercised and exploited, military command must have adequate control of its logistic support."

**Rear Admiral Henry E. Eccles:
Logistics in the National Defense,
1959**

4. Applied Operational Logistics

Figure IV-3 below illustrates some of the impacts of logistics at the operational level of war.

a. Logistics as a Force Multiplier. Correlations of combat power between opposing forces are often so close that a

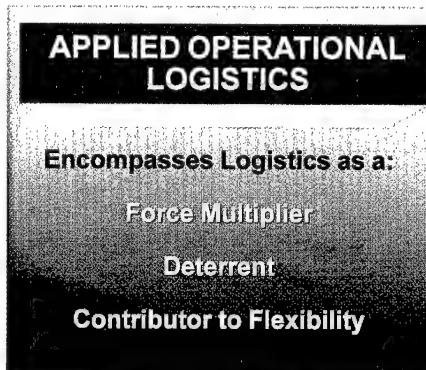


Figure IV-3. Applied Operational Logistics

small advantage gained by one side over the other can prove decisive. Logistics plays a **significant role**, both offensively and defensively, in attaining the leverage potential from a given force configuration. It does this primarily by **increasing the endurance of the force**. For example, a small investment in forward infrastructure can pay large dividends by reconstituting forces rapidly and returning them to battle in time to influence the outcome. Specifically, forward battle damage repair and maintenance capability, rapid runway repair capability, and forward medical treatment facilities can help in reconstituting forces efficiently.

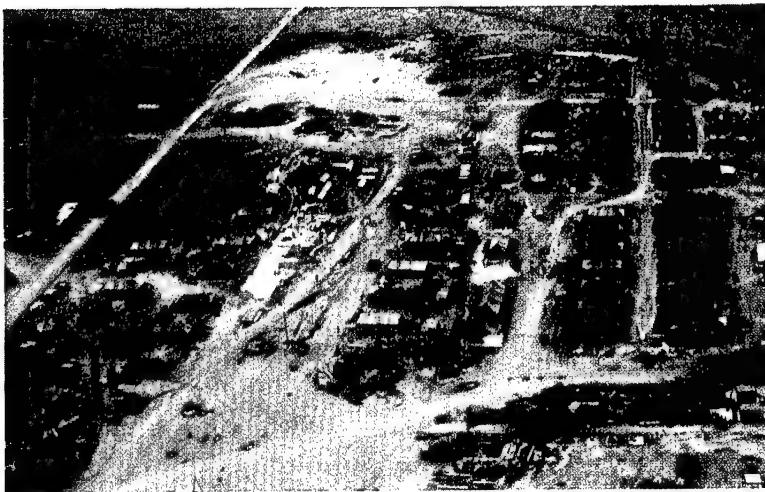
b. Logistics as a Deterrent. Logistic forces and the activation of logistic Reserve forces play a key role in deterrence, a major element of the Nation's military strategy. Adequate logistic resources and capabilities convey a **national will to fight a protracted conflict**. Also, increased states of readiness of logistic forces or the activation of national defense reserve logistic assets (e.g., the RRF) or increasing the readiness of reduced operating assets (e.g., fast sealift ships or hospital ships) may defuse tensions. These actions are usually less provocative than the posturing

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of combat forces and are often considered as joint operation plan deterrent options.

c. Logistics as a Contributor to Flexibility

- The **composition and disposition** of military forces and logistic resources are important considerations in developing **flexibility**. Essentially, logistics increases **the employment options** of the combatant commanders' forces.
- Logistic infrastructure and wartime HNS agreements **in place before hostilities** assist combatant commanders in achieving the **maximum use** from available forces through **flexibility**.
- To remain flexible, the logistic plan should **anticipate and provide for the next step** in case of operational success or failure, partial success, or change in the situation and intent of the enemy. Logistic plans and the dispositions of materiel and transport should allow exploitation or recovery operations in the shortest possible time.



A robust intratheater ground transportation system increases forward unit flexibility.

APPENDIX A

LOGISTIC RESPONSIBILITIES WITHIN THE DEPARTMENT OF DEFENSE

(As specified by title 10, USC)

1. Secretary of Defense

The Secretary of Defense will:

a. Develop national security emergency operational procedures and coordinate them with the Secretary of Housing and Urban Development with respect to residential property for the control, acquisition, leasing, assignment, and priority of occupancy of real property within the jurisdiction of the Department of Defense.

b. Review the priorities and allocations systems developed by other Federal departments and agencies to ensure that they meet DOD needs in a national security emergency.

c. In cooperation with the Secretary of Transportation and the Director, Federal Emergency Management Agency, identify those industrial products and facilities that are essential to mobilization readiness, national defense, or postattack survival and recovery.

d. In cooperation with the Secretary of Transportation and the Director, Federal Emergency Management Agency, analyze potential effects of national security emergencies on actual production capability, taking into account the entire production complex, including shortages of resources, and develop preparedness measures to strengthen capabilities for production increases in emergencies.

e. With the assistance of the heads of other Federal departments and agencies, provide management direction for the stockpiling of strategic and critical materials; conduct storage, maintenance, and quality assurance operations for the stockpile of strategic and critical materials; and formulate plans, programs, and reports relating to the stockpiling of strategic and critical materials.

2. Office of the Secretary of Defense

OSD is the civilian staff of the Secretary of Defense. Those most concerned with logistic matters are the Under Secretary of Defense for Acquisition and Technology (USD(A&T)), Under Secretary of Defense for Policy (USDP), and Assistant Secretary of Defense for Production and Logistics (ASD(P&L)). The USDP handles emergency preparedness functions. The USD(A&T) sets policy for acquisition through DOD directives of the 5000 series. The ASD(P&L) is the principal staff adviser to the Secretary of Defense for determining logistic requirements. The ASD(P&L) also carries out force structure analysis of logistic support capability including repair, overhaul and maintenance of equipment, and supply management. Further, the ASD(P&L) directs and controls the Defense Logistics Agency (DLA).

Appendix A

3. Chairman of the Joint Chiefs of Staff

The Chairman of the Joint Chief of Staff is the principal military adviser to the President and Secretary of Defense. The Chairman's responsibilities include the following primarily logistic functions:

a. Prepare joint logistic and mobility plans to support strategic plans and recommend the assignment of logistic and mobility responsibilities to the Armed Forces in accordance with those logistic and mobility plans.

b. Prepare joint logistic and mobility plans to support contingency plans and recommend the assignment of logistic and mobility responsibilities to the Armed Forces in accordance with those logistic and mobility plans.

c. Advise the Secretary of Defense on critical deficiencies and strengths in force capabilities (including manpower, logistic, and mobility support) identified during the preparation and review of contingency plans and assess the effect of such deficiencies and strengths on meeting national security objectives and policy and on strategic plans.

d. After consultation with the CINC, establish and maintain a uniform system for evaluating the preparedness of each combatant command to carry out their assigned missions.

e. Review the logistic plans and programs of the CINCs to determine their adequacy and feasibility for the performance of assigned missions.

f. Prepare and submit to the Secretary of Defense, for information and consideration, general strategic guidance

for the development of industrial and manpower mobilization programs.

g. Prepare and submit to the Secretary of Defense military guidance for use in the development of logistics-related military aid programs and other actions relating to foreign military forces.

h. Prepare and submit to the Secretary of Defense, for information and consideration in connection with the preparation of budgets, statements of military requirements based on US strategic plans. These statements should include tasks, priority of tasks, force requirements, and general strategic guidance for developing military installations and bases and for equipping and maintaining military forces.

4. Military Departments

Secretaries of the Military Departments have the following logistic responsibilities:

a. Exercise authority to conduct all affairs of their Departments to include recruiting, organizing, supplying, equipping, training, servicing, mobilizing, demobilizing, administering and maintaining forces; constructing, outfitting, and repairing military equipment; constructing, maintaining, and repairing buildings, structures, and utilities; and acquiring, managing, and disposing of real property or natural resources.

b. Prepare forces and establish reserves of manpower, equipment, and supplies for the effective prosecution of war and military operations throughout the range of military operations.

Logistic Responsibilities Within the Department of Defense

c. Maintain mobile Reserve forces in a state of readiness, properly organized, trained, and equipped for employment in an emergency.

d. Recruit, organize, train, and equip interoperable forces for assignment to combatant commands.

e. Conduct research; develop tactics, techniques, and organization; and develop and procure weapons, equipment, and supplies essential to the fulfillment of functions assigned by the Secretary of Defense.

f. Create, expand, or maintain an infrastructure that supports US forces using installations and bases, and provide administrative support, unless otherwise directed by the Secretary of Defense.

5. Military Services

The Army, Navy, Air Force, and Marine Corps, under their departmental Secretaries, and the Coast Guard, under the Department of Transportation in peacetime and the Department of the Navy in wartime, are responsible for the functions enumerated in DOD Directive 5100.1. They will provide logistic support for Service forces, including procurement, distribution, supply, equipment, and maintenance, unless otherwise directed by the Secretary of Defense.

6. Defense Logistics Agency

DLA is a Combat Support Agency of the Department of Defense and is controlled and directed by USD(A&T). USD(A&T) delegates the responsibility for exercising direction, authority, control and staff supervision of DLA to ASD(P&L). DLA functions as an integral element of the DOD military logistic system by providing worldwide logistic support to the Military Departments and the combatant commands across the range of military operations, as well as to other DOD components, Federal agencies, foreign governments, or international organizations as assigned. DLA has the following logistic responsibilities:

- a. Provide integrated materiel management of wholesale subsistence, clothing, bulk petroleum, and medical materiel.
- b. Provide supply support for all DLA-managed materiel.
- c. Perform logistic services directly associated with furnishing materiel commodities and items of supply.
- d. Provide property disposal services.
- e. Provide contract administration services.

Appendix A

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APPENDIX B

ORGANIZATION AND FUNCTIONS OF COMBATANT COMMAND LOGISTIC STAFF (J-4) AND FUNCTIONS OF JOINT LOGISTIC CENTERS, OFFICES, AND BOARDS

1. General

This appendix relates some insights, gained from experience and studies, that bear on the effective organization of a combatant command's logistic staff (J-4), and the wartime functions of that staff. Guidance implied by these insights is general in nature and not directive. The degree of application of the implications drawn from the information provided here will vary considerably among combatant commands.

2. Organizational Considerations

Often there may be little time to shift from a peacetime organization to a different wartime organization. Any effort involved in doing so will reduce resources available to apply to the significant logistic problems that accompany deployment and other initial logistic tasks in war. The logistic organization, therefore, should be tailored to respond to anticipated war tasks.

a. On the combatant command staff, these tasks will most likely take the form of coordination and planning functions and are derived from the CINC's mission. Therefore, conducting an inventory of wartime tasks is a preliminary requirement in validating or improving staff organization.

b. Although the J-4 organization should be based on wartime tasks, it could well be staffed at reduced levels in peacetime. Still, the full wartime structure should be

defined to aid in rapid expansion. The use of Reserve augmentments can provide pretrained expertise to support the wartime structure.

c. Organizing around war tasks does not preclude, in fact, it encourages, delegating to Service components certain special logistic planning tasks or the actual operation of certain joint logistic functions.

3. Key Functions

The CINCs will usually form command centers and operational planning teams in wartime. The logistic staff members in these groups are usually supported by a Logistic Readiness Center (LRC) or are teamed with representatives from various functional areas: fuels, ammunition, engineering, supply, surface transportation, sealift, airlift, and medical services. The LRC receives reports from Service components and external sources, distills information for presentation to the CINC, and responds to questions. In addition to operating the LRC and providing representation in the command center, the combatant command logistic staff performs four key functions:

a. **Monitors Current and Evolving Theater Logistic Capabilities.** The status information collected from Service components should support the following questions:

- Are any planned operations in jeopardy because of logistic limitations?

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- Are there any types of operations that should not be considered because they could not be supported?

- The data reported should be in the form of gross comparisons of current stock and expected consumption and should identify the on-hand percentage of requirements of critical items and munitions.

- The logistic status information should be converted to output indicators; the types of operations current and incoming assets could support, including factors such as intensity of combat, duration of the operation, and the operational reach that can be attained.

- In summary, this function involves collecting, consolidating, interpreting, and explaining data regarding current and upcoming logistic status in the theater. It then relates those data to the operations the CINCs are considering.

b. Coordinates Logistic Support With Upcoming Operations. This function involves directing the shift of logistic support from one Service component or one geographic area to another in the theater. To perform this function properly, the logistic staff needs to know materiel commonalities among the Services, logistic force capabilities, the location of Service component resources, what materiel is en route to the theater, and how to interpret the various means of measuring supply levels.

c. Advises the CINCs on the Supportability of Proposed Operations or COAs. Because logistic support of Service components is a Service responsibility, Service components must also perform this task. However, the

CINC's J-4 should be able to provide a gross analysis of COAs at the combatant command level before the Service components get involved in detailed assessments.

d. Acts as the CINC's Agent and Advocate to Non-theater Logistic Organizations. This function involves routinely reporting logistic status to the Chairman of the Joint Chiefs of Staff requesting extra resources, overseeing priorities conveyed to supporting organizations, overseeing adjustments to the flow of forces and supplies, and coordinating logistics with allies and their combatant commands.

4. Joint Logistic Centers, Offices, and Boards

The following are examples of joint logistic centers, offices, and boards that may be established by CINCs or subordinate joint force commanders to coordinate the logistic effort:

a. Joint Transportation Board. The JTB will establish priorities and allocate common-user transportation resources within the theater. The JTB will process all requests for reapportionment or adjustment of established allocations from the component commanders.

b. Joint Movement Center (JMC)

- The JMC is established under the supervision of the joint force commander's J-4 to implement the tasking and priorities provided by the JFC.

- The JMC coordinates the employment of all means of transportation (including that provided by allies or HNs) to support the concept of operations. This coordination is

**Organization and Functions of Combatant Command Logistic Staff (J-4) and
Functions of Joint Logistic Centers, Offices, and Boards**

accomplished through the establishment of strategic or theater transportation policies within the assigned theater, consistent with relative urgency of need, port and terminal capabilities, transportation asset availability, and priorities set by the CINCs. Joint Pub 4-01, "Joint Doctrine for the Defense Transportation System," will provide joint transportation procedures for use of common-user lift assets and should be, when available, consulted by the logistic planner.

- The J-4 directs or recommends to the CINC, as appropriate, COAs with respect to allocation of common-user transportation capabilities when movement requirements exceed capability or when competing requirements result in unresolved conflicts.
- Although the functions and responsibilities of the JMC may differ, depending on circumstances, the JMC will normally:
 - Interface with JOPES to monitor and effect changes to the deployment of forces and supplies.
 - Analyze user capabilities to ship, receive, handle cargo, and recommend solutions to shortfalls.
 - Advise the J-4 on transportation matters that would adversely affect combat contingency operations.
 - Serve as the liaison with the HN(s) for transportation issues.
 - Disseminate information concerning HN transportation systems, facilities, equipment, and personnel.

- Communication links may be required to support the JMC:
 - With each of the transportation control elements (e.g., Movement Control Center, Airlift Control Center, and Water Terminal Clearance Authority).
 - With each component.
 - Directly with USTRANSCOM and the transportation component commands (AMC, MSC, and MTMC).

**c. Logistic Staff Officer for
Petroleum and Subarea Petroleum
Office**

- Normally, the unified command Joint Petroleum Office (JPO) provides wholesale bulk petroleum management support. The primary duties of the logistic staff officer for petroleum are as follows (see Joint Pub 4-03, "Joint Bulk Petroleum Doctrine," for additional guidance):
 - Coordinate POL planning and mission execution matters.
 - Coordinate the supply of common bulk petroleum products to joint force components.
 - Using DOD Manual 4140.25-M, "Management of Bulk Petroleum Products, Storage, and Distribution Facilities," coordinate with Service components in determining requirements for bulk petroleum and ensure stockage through the Defense Fuel Supply Center (DFSC) sources.

Appendix B

- Recommend necessary reallocation and apportionment of petroleum products and facilities to CINCs.
- Oversee quality surveillance programs.
- When tactical operations warrant extensive management of wholesale bulk petroleum in the theater, the JPO may establish a Subarea Petroleum Office (SAPO). Staff augmentation may be provided by Service components. The primary function of the SAPO is to discharge the staff petroleum logistic responsibilities of a joint force. The SAPO will conform to the administrative and technical procedures established by the combatant command and the DFSC in DOD Manual 4140.25-M. Key duties of the SAPO are as follows:
 - Review and consolidate area resupply requirements through the JPO to the DFSC.
 - Release or reallocate prepositioned war reserve materiel stocks.
 - Assist the DFSC in executing applicable support responsibilities in the AOR.
 - Take continuous action to identify and submit requirements to HNs for petroleum logistic support.
- d. Joint Civil-Military Engineering Board (JCMEB)**
 - The JCMEB establishes policies, procedures, priorities, and overall direction for civil-military construction and engineering requirements in the theater.
 - The JCMEB is a temporary board, activated by the geographic combatant commander and staffed by personnel from the components and agencies or activities in support of the geographic combatant commander.
 - The JCMEB arbitrates all issues referred to it by the Joint Facilities Utilization Board (JFUB) and, if appropriate, assumes responsibility for the preparation of the Civil Engineering Support Plan.
 - The JCMEB will coordinate its activities with the regional or theater wartime construction managers having responsibility for the assigned AOR. Construction and engineering requirements that the JCMEB cannot satisfy from within joint force resources will be elevated to the regional or theater wartime construction managers for support.
- e. Joint Facilities Utilization Board**
 - The JFUB evaluates and reconciles component requests for real estate, use of existing facilities, inter-Service support, and construction to ensure compliance with JCMEB priorities.
 - The JFUB is activated on order of a geographic combatant or subordinate joint force commander and chaired by a geographic combatant or subordinate joint force J-4, with members from components and any required special activities (e.g., legal and civil affairs).
 - The JFUB also provides administrative support and functions as the executive agency for the taskings of the JCMEB.

Organization and Functions of Combatant Command Logistic Staff (J-4) and
Functions of Joint Logistic Centers, Offices, and Boards

- JFUB actions will be guided by the provisions of Joint Pub 4-04, "Joint Doctrine for Civil Engineering Support."

f. CINC Logistic Procurement Support Board (CLPSB)

- Geographic combatant commanders coordinate contracting operations within their commands. This requirement may be met through the CLPSB, which is a temporary board designed to achieve a properly coordinated acquisition program.
- The CLPSB is chaired by a J-4 representative and includes representatives from each of the component commands.
- CLPSB functions:
 - Coordinates with US Embassies and host countries for acquisition of supplies and services and for operations by contractors performing under US contracts.
 - Eliminates duplication by arranging for single-Service contracting assignments for specified supplies and services, when appropriate.

- Provides an exchange of information among contracting activities covering such matters as sources of supply, prices, and contractor performance.

- Provides guidance on the consolidation of purchases.

- Establishes procedures to coordinate procurement with the supply operations of the commander and area.

- Prescribes payment procedures consistent with currency-control requirements and international agreements.

- Promulgates, as necessary, joint classification and compensation guides governing wages, living allowances, and other benefits for Third World country national and indigenous employees, in coordination with appropriate agencies.

g. Theater Patient Movement Requirements Center (TPMRC). The TPMRC is under the control of the joint force surgeon and coordinates and controls, in terms of identifying bed space requirements, the movement of patients within and out of the assigned AOR. TPMRCs generate theater plans and schedules, and then modify (as needed) and execute Global Patient Movements Requirements Center (GPMRC) delivered schedules, ultimately delivering the patient to the Medical Treatment Facility (MTF). The TPMRC should be task-organized to maintain flexibility in response to the tactical situation and mission of the CINC.

h. Joint Blood Program Office (JBPO)

- The JBPO, within the office of the joint force surgeon, is task-organized to meet operational requirements and is staffed by Service representatives who are knowledgeable in blood bank techniques.

- The JBPO plans, coordinates, and directs the handling, storage, and distribution of blood and blood components within the assigned AOR. The JBPO consolidates and forwards requirements for resupply to

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the Armed Services Blood Program Office (ASBPO).

- Area JBPO will be activated on the order of a CINC if the situation dictates.

i. Joint Mortuary Affairs Office (JMAO)

- The Army component commander is routinely designated executive agent for the theater mortuary affairs program, which includes the establishment and operation of the JMAO under the staff supervision of a joint force commander J-4.
- The JMAO plans and executes all mortuary affairs programs. The JMAO will provide guidance to facilitate the conduct of all mortuary programs and to maintain data (as required) pertaining to recovery, identification, and disposition of all US dead and missing in the assigned theater. The JMAO will serve as the central clearing point for all mortuary

affairs and casualty information, and will monitor the deceased and missing personal effects program.

j. Joint Materiel Priorities and Allocation Board (JMPAB). The JMPAB:

- Modifies and recommends priorities for allocations of materiel assets for the fulfillment of logistic requirements of the theater (both US and allied forces).
- Reviews, acts on, or forwards requests for modifications in force and activity designators to the Joint Staff.
- Reviews, acts on, or forwards requests to establish or change the priorities in the master urgency list to the Joint Staff.
- Prepares recommendations to the Joint Staff on modifications to priorities and allocations of resources assigned to other combatant commanders.

APPENDIX C

LOGISTIC INDICATORS

The following logistic considerations are a guide for use as indicators to assess logistic feasibility of various COAs. The indicators are by no means exclusive, but a process for identifying critical information requirements or analytical work necessary to develop an OPLAN Annex D. Unless otherwise noted, these indicators apply to the strategic and operational level of logistics.

- a. Materiel sourcing can only be accomplished by the Services and sourcing agencies. Early liaison among all concerned is essential to assess:
 - Status of critical supplies and materiel in the theater, in the pipeline from CONUS to the theater, and in CONUS.
 - Prepositioning of adequate war reserves.
- b. Bottlenecks en route to or within the theater.
- c. Status of facilities and resources.
- d. Movement control concepts.
- e. Availability of wartime HNS.
- f. Time-phasing and readiness status of CSS.
- g. Manufacturing rate of the CONUS pipeline or production line needed to sustain forward operations.
- h. **Concentration.** (Are superior resources concentrated to support combat power at the decisive time and place?)
- i. **Visibility.** (Do commanders know what logistic support they have and where it is at all times?)
- j. **Mobility.** (Do commanders understand the capabilities of theater mobility assets in supporting operational movements and how long it will take to move forces and logistic assets to the decisive point of concentration?)
- k. Configuration of materiel for transport. (Are there adequate means to move materiel where and when it needs to be moved and capabilities to reconfigure it for delivery if required?)
- l. Disproportional stockpiles of supplies at rear echelons while front units are in short supply.
- m. Unusually high wastage or pilferage at any point in the logistic system.

Appendix C

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APPENDIX D

LOGISTIC CHECKLIST FOR

OPLANS ANNEX D

The following questions cover areas of consideration that should be addressed in Annex D of OPLANS. Additional guidance can be located in Joint Pub 5-03.2, "Joint Operation Planning and Execution System, Volume II," Section III, "Annex D Planning Guidance—Logistics."

a. Has a thorough review of the OPLAN or OPORD been made?

b. Are logistic-related annexes and estimates prepared?

- Is initial distribution of supplies included?

- Have logistic plans been coordinated with component commanders? Has consideration been given to assigning the responsibility for theater support to the dominant users of services?

- Are movements of personnel, equipment, and supplies included? Have adequate provisions been made for defense during movements?

- Are construction and other engineering requirements included? Has a barrier plan been considered? Have those materiel requirements been identified for sourcing?

c. How many days can assigned forces sustain operations with organic supplies? Are sustainment supplies phased to provide uninterrupted operations? What is the supply safety level?

d. Petroleum

- What is the concept of operations for petroleum support?
- What HNS is available?
- What are component responsibilities for petroleum support? Have components provided estimates of POL requirements?
- Have arrangements been made to contract for HNS sources, with the supported CINC's JPO or DFSC? Should a SAPO for resupplying POL be established?
- Has a quality control program for POL been established?
- Have POL storage methods and sites been selected? Have security arrangements for the sites been established?
- Have arrangements been made for transportation of POL within the assigned theater?

e. Munitions

- What are the critical munitions required for this operation?
- Are sufficient stocks of these critical munitions available?
- Have these munitions been properly relocated or positioned to support the operation?

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- Can any critical munitions shortfalls be remedied through transfer between component commands or from foreign forces as a quick fix?
- Have components provided estimates of ammunition resupply requirements?
- Have ammunition storage sites been selected?
- Have security arrangements for the ammunition sites been established?
- Have arrangements been made for the transportation of ammunition within the theater?
- Resupply requirements been established?
- Have resupply channels been determined? If applicable, have provisions been made to establish a medical depot?
- Has a TPMRC been established to coordinate movement of patients within and out of the assigned AOR?
- Has a JBPO or similar function agency been activated to plan and coordinate the handling, storage, and distribution of whole blood within the assigned AOR and consolidate and forward resupply requirements to the ASBPO?
- Have medical personnel augmentation packages been identified and requirements submitted? Do hospitals have enough personnel and equipment to support movement of critical patients? Are there sufficient litters, straps, blankets, and other supplies as required, to support anticipated workload?
- Have provisions been made to establish and operate the fixed-wing medical evaluation system?
- Have primary and secondary aeromedical airfields been identified?
- Have preventive medicine procedures been established and sufficient personnel identified to ensure protection of the health and well-being of personnel assigned to the theater?
- Have medical communications channels, frequencies to be used by medical personnel, and any dedicated

Logistic Checklist for OPLANS Annex D

or medical-unique communications nets, operating procedures, or requirements been identified?

g. Sustainability Analysis

- Are procedures established for maintenance, recovery, and salvage operations? Is there a requirement to provide disposal support within the theater where there is no Defense Reutilization Management Office (DRMO)? Is a DRMO that can be used located in the vicinity of the theater?
- Are inter-Service or WHNS agreements or coordination required?
- Have arrangements been made to obtain maintenance support not organic to the force?
- Has a JMAO been established to plan and coordinate all mortuary operations such as remains identification, transportation and temporary burial of the dead, and collection and processing of personal effects? Is there a JMAO to serve as a central point for graves registration information? Have mortuary affairs guidelines been established to include the following:
 - Current death program?
 - Concurrent return program?
 - Graves registration program?
 - Personal effects program?
 - Return of remains program?
- Have laundry and bath support requirements been generated in coordination with the medical authority, with consideration for environmental factors?
- Have component requests for existing facilities, real estate, inter-Service support, and construction been evaluated and prioritized?
- Has provision been made for battle damage repair (e.g., rapid runway repair)?
- Is a CINC CLPSB required to coordinate contracting operations? Are liaison personnel required to provide in-theater assistance such as fuels and substance, reutilization and marketing, and contract administration?
- Have procedures been established to coordinate with US Embassies and host countries for acquisition of supplies and services?
- Are imprest funds required? Have imprest fund cashiers been appointed to the supporting US disbursing officer?
- Has a joint logistic communications plan been developed to provide a general guide for logisticians' C2 requirements?
- Are adequate security procedures established for classified logistic data transmission?
- Has the need been considered for additional US security assistance to friendly countries in the assigned theater?

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h. Transportation Analysis

- Have joint-use transportation requirements been established?
- Has a JMC been established (if needed) to ensure that transportation requests are validated and theater common-user transportation resources are employed with maximum effectiveness?
- Are common-user transportation requirements, capabilities, and performance monitored?
- Are transportation shortfalls and conflicts in priorities adjudicated?
- What WHNS transportation facilities and equipment are available?
- Has the JMC evaluated and disseminated information about HN transportation systems, facilities, equipment, and personnel?
- Has JMC communication with JOPES been established to monitor and effect changes to the deployment of forces and supplies?

APPENDIX E REFERENCES

The development of Joint Pub 4-0 is based on the following primary references:

1. The Goldwater-Nichols Department of Defense Reorganization Act of 1986 (10 U.S.C. 161 et. seq. PL 99-433).
2. DOD Directive 5100.1, "Functions of the Department of Defense and Its Major Components."
3. Joint Pub 0-2, "Unified Action Armed Forces (UNAAF)."
4. Joint Pub 1-01, "Joint Publication System, Joint Doctrine and Joint Tactics, Techniques, and Procedures Development Program."
5. Joint Pub 1-02, "DOD Dictionary of Military and Associated Terms."
6. Joint Pub 1-03 Series, "Joint Reporting Structure."
7. DJSM-89-92, 27 January 1992, "Command Relationships."
8. Secretary of Defense memorandum, 14 February 1992, "Strengthening Department of Defense Transportation Functions."
9. DOD Manual, "Management of Bulk Petroleum Products, Storage, and Distribution Facilities."
10. NATO Logistics Handbook

Appendix E

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APPENDIX F **ADMINISTRATIVE INSTRUCTIONS**

1. User Comments

Users in the field are highly encouraged to submit comments on this publication to the Joint Warfighting Center, Attn: Doctrine Division, Fenwick Road, Bldg 96, Fort Monroe, VA 23651-5000. These comments should address content (accuracy, usefulness, consistency, and organization), writing, and appearance.

2. Authorship

The lead agent and Joint Staff doctrine sponsor for this publication is the Director for Logistics (J-4).

3. Supersession

This publication supersedes Joint Pub 4-0, 25 September 1992, "Doctrine for Logistic Support of Joint Operations."

4. Change Recommendations

a. Recommendations for urgent changes to this publication should be submitted:

TO: JOINT STAFF WASHINGTON DC//J4//
INFO: JOINT STAFF WASHINGTON DC//J7-JDD//

Routine changes should be submitted to the Director for Operational Plans and Interoperability (J-7), 7000 Joint Staff Pentagon, Washington, D.C. 20318-7000.

b. When a Joint Staff directorate submits a proposal to the Chairman of the Joint Chiefs of Staff that would change source document information reflected in this publication, that directorate will include a proposed change to this publication as an enclosure to its proposal. The Military Services and other organizations are requested to notify the Director, J-7, Joint Staff, when changes to source documents reflected in this publication are initiated.

c. Record of Changes:

CHANGE NUMBER	COPY NUMBER	DATE OF CHANGE	DATE ENTERED	POSTED BY	REMARKS
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Appendix F

5. Distribution

- a. Additional copies of this publication can be obtained through Service publication centers.
- b. Only approved pubs and test pubs are releasable outside the combatant commands, Services, and Joint Staff. Release of any joint publication to foreign governments or foreign nationals must be requested through the local embassy (Defense Attache Office) to DIA Foreign Liaison Branch, C-AS1, Room 1A674, Pentagon, Washington D.C. 20301-7400.
- c. Additional copies should be obtained from the Military Service assigned administrative support responsibility by DOD Directive 5100.3, 1 November 1988, "Support of the Headquarters of Unified, Specified, and Subordinate Joint Commands."

By Military Services:

Army: US Army AG Publication Center
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Philadelphia, PA 19120-5000

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Albany, GA 31704-5000

Coast Guard: Coast Guard Headquarters, COMDT (G-REP)
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- d. Local reproduction is authorized and access to unclassified publications is unrestricted. However, access to and reproduction authorization for classified joint publications must be in accordance with DOD Regulation 5200.1-R.

GLOSSARY

PART I—ABBREVIATIONS AND ACRONYMS

ACSA	acquisition cross-Service agreement
AMC	Air Mobility Command (formerly Military Airlift Command)
AOR	area of responsibility
ASBPO	Armed Services Blood Program Office
ASD(P&L)	Assistant Secretary of Defense for Production and Logistics
C2	command and control
C4	command, control, communications, and computers
C4I	command, control, communications, computers, and intelligence
CI	counterintelligence
CINC	commander of a combatant command
CLPSB	CINC Logistic Procurement Support Board
COA	course of action
COCOM	combatant command (command authority)
CONUS	continental United States
CS	combat support
CSS	combat service support
DFSC	Defense Fuel Supply Center
DLA	Defense Logistics Agency
DOD	Department of Defense
DRMO	Defense Reutilization Management Office
HN	host nation
HNS	host-nation support
HSS	health service support
JBPO	Joint Blood Program Office
JCMEB	Joint Civil-Military Engineering Board
JFC	joint force commander
JFUB	Joint Facilities Utilization Board
JMAO	Joint Mortuary Affairs Office
JMC	Joint Movement Center
JMPAB	Joint Materiel Priorities and Allocation Board
JMRO	Joint Medical Regulating Office
JOPES	Joint Operation Planning and Execution System
JPO	Joint Petroleum Office
JTB	Joint Transportation Board
LOC	lines of communications
LRC	Logistics Readiness Center

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MSC	Military Sealift Command
MTMC	Military Traffic Management Command
NCA	National Command Authorities
OPLAN	operation plan
OPORD	operation order
OSD	Office of the Secretary of Defense
POL	petroleum, oils, and lubricants
RRF	Ready Reserve Force
SAPO	Subarea Petroleum Office
TPFDD	time-phased force and deployment data
TPMRC	Theater Patient Movement Requirements Center
UNAAF	United Action Armed Forces
USCINCTRANS	Commander in Chief, US Transportation Command
USD(A&T)	Under Secretary of Defense for Acquisition and Technology
USDP	Under Secretary of Defense for Policy
USTRANSCOM	US Transportation Command
WHNS	wartime host-nation support
WWMCCS	Worldwide Military Command and Control System

PART II—TERMS AND DEFINITIONS

advanced base. A base located in or near a theater of operations whose primary mission is to support military operations. (Joint Pub 1-02)

area of responsibility. 1. The geographical area associated with a combatant command within which a combatant commander has authority to plan and conduct operations. 2. In naval usage, a predefined area of enemy terrain for which supporting ships are responsible for covering by fire on known targets or targets of opportunity and by observation. (Joint Pub 1-02)

base. 1. A locality from which operations are projected or supported. 2. An area or locality containing installations which provide logistic or other support. 3. Home airfield or home carrier. (Joint Pub 1-02)

combatant command (command authority). Nontransferable command authority established by title 10, United States Code, section 164, exercised only by commanders of unified or specified combatant commands unless otherwise directed by the President or the Secretary of Defense. Combatant command (command authority) cannot be delegated and is the authority of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Combatant command (command authority) should be exercised through the commanders of subordinate organizations. Normally,

this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Combatant command (command authority) provides full authority to organize and employ commands and forces as the combatant commander considers necessary to accomplish assigned missions. Operational control is inherent in combatant command (command authority). Also called COCOM. (Joint Pub 1-02)

combat power. The total means of destructive and/or disruptive force which a military unit/formation can apply against the opponent at a given time. (Joint Pub 1-02)

combat service support. The essential capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces in theater at all levels of war. Within the national and theater logistic systems, it includes but is not limited to that support rendered by service forces in ensuring the aspects of supply, maintenance, transportation, health services, and other services required by aviation and ground combat troops to permit those units to accomplish their missions in combat. Combat service support encompasses those activities at all levels of war that produce sustainment to all operating forces on the battlefield. (Joint Pub 1-02)

combat support. Fire support and operational assistance provided to combat elements. Combat support includes artillery, air defense artillery, engineer, military police, signal, and military intelligence support. (Joint Pub 1-02)

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common servicing. That function performed by one Military Service in support of another Military Service for which reimbursement is not required from the Service receiving support. (Joint Pub 1-02)

communications zone. Rear part of theater of operations (behind but contiguous to the combat zone) which contains the lines of communications, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces. (Joint Pub 1-02)

concept of logistic support. A verbal or graphic statement, in a broad outline, of how a commander intends to support and integrate with a concept of operations in an operation or campaign. (Joint Pub 1-02)

cross-servicing. That function performed by one Military Service in support of another Military Service for which reimbursement is required from the Service receiving support. (Joint Pub 1-02)

deployment. 1. In naval usage, the change from a cruising approach or contact disposition to a disposition for battle. 2. The movement of forces within areas of operations. 3. The positioning of forces into a formation for battle. 4. The relocation of forces and materiel to desired areas of operations. Deployment encompasses all activities from origin or home station through destination, specifically including intra-continental United States, intertheater, and intratheater movement legs, staging, and holding areas. (Joint Pub 1-02)

depot. 1. Supply - An activity for the receipt, classification, storage, accounting, issue, maintenance, procurement, manufacture, assembly, research, salvage, or disposal of material. 2. Personnel - An activity for the reception, processing, training, assignment, and forwarding of personnel replacements. (Joint Pub 1-02)

distribution. 1. The arrangement of troops for any purpose, such as a battle, march, or maneuver. 2. A planned pattern of projectiles about a point. 3. A planned spread of fire to cover a desired frontage or depth. 4. An official delivery of anything, such as orders or supplies. 5. That functional phase of military logistics that embraces the act of dispensing materiel, facilities, and services. 6. The process of assigning military personnel to activities, units, or billets. (Joint Pub 1-02)

distribution system. That complex of facilities, installations, methods, and procedures designed to receive, store, maintain, distribute, and control the flow of military materiel between the point of receipt into the military system and the point of issue to using activities and units. (Joint Pub 1-02)

dominant user concept. The concept that the Service which is the principal consumer will have the responsibility for performance of a support workload for all using Services. (Joint Pub 1-02)

D-to-P concept. A logistic planning concept by which the gross materiel readiness requirement in support of approved forces at planned wartime rates for conflicts of indefinite duration will be satisfied by a balanced mix of

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assets on hand on D-day and assets to be gained from production through P-day when the planned rate of production deliveries to the users equals the planned wartime rate of expenditure (consumption). (Joint Pub 1-02)

evacuation. 1. The process of moving any person who is wounded, injured, or ill to and/or between medical treatment facilities. 2. The clearance of personnel, animals, or materiel from a given locality. 3. The controlled process of collecting, classifying, and shipping unserviceable or abandoned materiel, United States and foreign, to appropriate reclamation, maintenance, technical intelligence, or disposal facilities. (Joint Pub 1-02)

evacuation policy. 1. Command decision, indicating the length in days of the maximum period of noneffectiveness that patients may be held within the command for treatment. Patients who, in the opinion of responsible medical officers, cannot be returned to duty status within the period prescribed are evacuated by the first available means, provided the travel involved will not aggravate their disabilities. 2. A command decision concerning the movement of civilians from the proximity of military operations for security and safety reasons and involving the need to arrange for movement, reception, care, and control of such individuals. 3. Command policy concerning the evacuation of unserviceable or abandoned materiel and including designation of channels and destinations for evacuated materiel, the establishment of controls and procedures, and the dissemination of condition standards and disposition instructions. (Joint Pub 1-02)

facility. A real property entity consisting of one or more of the following: a building, a structure, a utility system, pavement, and underlying land. (Joint Pub 1-02)

host-nation support. Civil and/or military assistance rendered by a nation to foreign forces within its territory during peacetime, crises or emergencies, or war based on agreements mutually concluded between nations. (Joint Pub 1-02.)

international logistics. The negotiating, planning, and implementation of supporting logistics arrangements between nations, their forces, and agencies. It includes furnishing logistic support (major end items, materiel, and/or services) to, or receiving logistic support from, one or more friendly foreign governments, international organizations, or military forces, with or without reimbursement. It also includes planning and actions related to the intermeshing of a significant element, activity, or component of the military logistics systems or procedures of the United States with those of one or more foreign governments, international organizations, or military forces on a temporary or permanent basis. It includes planning and actions related to the utilization of United States logistics policies, systems, and/or procedures to meet requirements of one or more foreign governments, international organizations, or forces. (Joint Pub 1-02)

international logistic support. The provision of military logistic support by one participating nation to one or more participating nations, either with or without reimbursement. (Joint Pub 1-02)

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inter-Service support. Action by one Military Service or element thereof to provide logistic and/or administrative support to another Military Service or element thereof. Such action can be recurring or nonrecurring in character on an installation, area, or worldwide basis. (Joint Pub 1-02)

joint logistics. The art and science of planning and carrying out, by a joint force commander and staff, logistic operations to support the protection, movement, maneuver, firepower, and sustainment of operating forces of two or more Services of the same nation. (Joint Pub 1-02)

joint movement center. The center established to coordinate the employment of all means of transportation (including that provided by allies or host nations) to support the concept of operations. This coordination is accomplished through establishment of transportation policies within the assigned area of responsibility, consistent with relative urgency of need, port and terminal capabilities, transportation asset availability, and priorities set by a joint force commander. (Joint Pub 1-02)

joint servicing. That function performed by a jointly staffed and financed activity in support of two or more Military Services. (Joint Pub 1-02)

level of supply. The quantity of supplies or materiel authorized or directed to be held in anticipation of future demands. (Joint Pub 1-02)

lines of communications. All the routes, land, water, and air, which connect an operating military force with a base of operations and along which supplies

and military forces move. Also called LOC. (Joint Pub 1-02)

logistic assessment. An evaluation of: a. The logistic support required to support particular military operations in a theater of operations, country, or area. b. The actual and/or potential logistics support available for the conduct of military operations either within the theater, country, or area, or located elsewhere. (Joint Pub 1-02)

logistic estimate of the situation. An appraisal resulting from an orderly examination of the logistic factors influencing contemplated courses of action to provide conclusions concerning the degree and manner of that influence. (Joint Pub 1-02)

logistics. The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with: a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materiel; b. movement, evacuation, and hospitalization of personnel; c. acquisition or construction, maintenance, operation, and disposition of facilities; and d. acquisition or furnishing of services. (Joint Pub 1-02)

logistics-over-the-shore operations. The loading and unloading of ships without the benefit of fixed port facilities, in friendly or nondefended territory, and, in time of war, during phases of theater development in which there is no opposition by the enemy. Also called LOTS. (Joint Pub 1-02)

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logistics sourcing. The identification of the origin and determination of the availability of the time-phased force and deployment data nonunit logistics requirements. (Joint Pub 1-02)

materiel. All items (including ships, tanks, self-propelled weapons, aircraft, etc., and related spares, repair parts, and support equipment, but excluding real property, installations, and utilities) necessary to equip, operate, maintain, and support military activities without distinction as to its application for administrative or combat purposes. (Joint Pub 1-02)

movement control. The planning, routing, scheduling, and control of personnel and cargo movements over lines of communications; also an organization responsible for these functions. (Joint Pub 1-02)

naval advanced logistic support site. An overseas location used as the primary transshipment point in the theater of operations for logistic support. A naval advanced logistic support site possesses full capabilities for storage, consolidation, and transfer of supplies and for support of forward-deployed units (including replacements units) during major contingency and wartime periods. Naval advanced logistic support sites, with port and airfield facilities in close proximity, are located within the theater of operations but not near the main battle areas, and must possess the throughput capacity required to accommodate incoming and outgoing intertheater airlift and sealift. When fully activated, the naval advanced logistic support site should consist of facilities and services provided by the host nation, augmented by support personnel located in the

theater of operations, or both. Also called ALSS. See also naval forward logistics site. (Joint Pub 1-02)

naval forward logistic site. An overseas location, with port and airfield facilities nearby, which provides logistic support to naval forces within the theater of operations during major contingency and wartime periods. Naval forward logistic sites may be located in close proximity to main battle areas to permit forward staging of services, throughput of high priority cargo, advanced maintenance, and battle damage repair. Naval forward logistic sites are linked to in-theater naval advanced logistic support sites (ALSSs) by intratheater airlift and sealift, but may also serve as transshipment points for intertheater movement of high-priority cargo into areas of direct combat. In providing fleet logistic support, naval forward logistic site capabilities may range from very austere to near those of a naval advanced logistic support site. Also called FLS. (Joint Pub 1-02)

operational control. Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority). Operational control may be delegated and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions

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assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called OPCON. (Joint Pub 1-02)

P-day. That point in time at which the rate of production of an item available for military consumption equals the rate at which the item is required by the Armed Forces. (Joint Pub 1-02)

pipeline. In logistics, the channel of support or a specific portion thereof by means of which materiel or personnel flow from sources of procurement to their point of use. (Joint Pub 1-02)

planning factor. A multiplier used in planning to estimate the amount and type of effort involved in a contemplated operation. Planning factors are often expressed as rates, ratios, or lengths of time. (Joint Pub 1-02)

port. A place at which ships may discharge or receive their cargoes. It includes any port accessible to ships on the seacoast, navigable rivers or inland waterways. The term "ports" should not be used in conjunction with air facilities which are designated as aerial ports, airports, etc. (Joint Pub 1-02)

priority. With reference to operation plans and the tasks derived therefrom, an indication of relative importance rather than an exclusive and final designation of the order of accomplishment. (Joint Pub 1-02)

security assistance. Group of programs authorized by the Foreign Assistance Act of 1961, as amended, and the Arms Export Control Act of 1976, as amended, or other related statutes by which the United States provides defense articles, military training, and other defense-related services, by grant, loan, credit, or cash sales in furtherance of national policies and objectives. (Joint Pub 1-02)

sustainability. The ability to maintain the necessary level and duration of operational activity to achieve military objectives. Sustainability is a function of providing for and maintaining those levels of ready forces, materiel, and consumables necessary to support military effort. (From the definition of "military capability" in Joint Pub 1-02)

sustainment. The provision of personnel, logistic, and other support required to maintain and prolong operations or combat until successful accomplishment or revision of the mission or of the national objective. (Joint Pub 1-02)

tactical control. Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at

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any level at or below the level of combatant command. Also called TACON. (Joint Pub 0-2)

theater. The geographical area outside the continental United States for which a commander of a combatant command has been assigned responsibility. (Joint Pub 1-02)

time-phased force and deployment data.

The Joint Operation Planning and Execution System data base portion of an operation plan; it contains time-phased force data, non-unit-related cargo and personnel data, and movement data for the operation plan, including:

- a. In-place units.
- b. Units to be deployed to support the operation plan with a priority indicating the desired sequence for their arrival at the port of debarkation.
- c. Routing of forces to be deployed.
- d. Movement data associated with deploying forces.
- e. Estimates of non-unit-related cargo and personnel movements to be conducted concurrently with the deployment of forces.

f. Estimate of transportation requirements that must be fulfilled by common-user lift resources as well as those requirements that can be fulfilled by assigned or attached transportation resources. Also called TPFDD. (Joint Pub 1-02).

transportation component command.

The three component commands of USTRANSCOM: Air Force Air Mobility Command, Navy Military Sealift Command, and Army Military Traffic Management Command. Each transportation component command remains a major command of its parent Service and continues to organize, train, and equip its forces as specified by law. Each transportation component command also continues to perform Service-unique missions. (Joint Pub 1-02)

transportation system. All the land, water, and air routes and transportation assets engaged in the movement of US forces and their supplies during peacetime training, conflict, or war, involving both mature and contingency theaters and at the strategic, operational, and tactical levels of war. (Joint Pub 1-02)

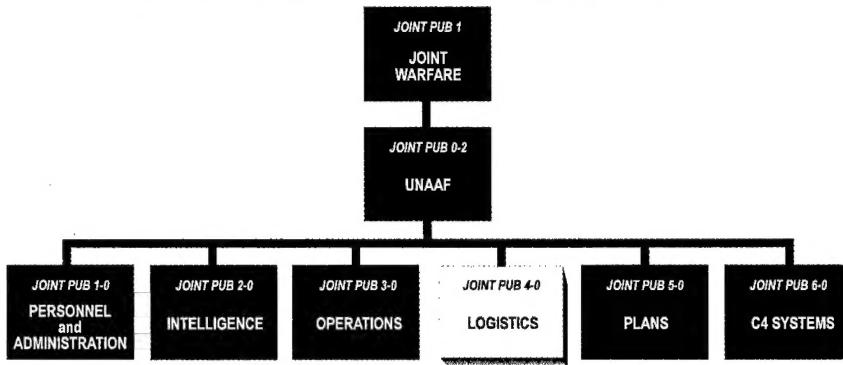
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JOINT DOCTRINE PUBLICATIONS HIERARCHY



All joint doctrine and tactics, techniques, and procedures are organized into a comprehensive hierarchy as shown in the chart above. Joint Pub 4-0 is the keystone publication for the **Logistics** series of joint doctrine publications. The diagram below illustrates an overview of the development process:

